*National Child Development Study*

# NCDS

## user support group

*working paper 45*

# Skills and Occupations: Analysis of Cohort Members' Self-Reported Skills in the Fifth Sweep of the National Child Development Study.

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September 1994

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## 1 Introduction

1.1 Britain's skills base has been the subject of continuing concern in recent years (eg. ED, 1988; CBI, 1990). Compared with other countries, the British workforce has been considered less well equipped with the skills that modern employment demands and those entering employment for the first time, less well prepared than they should be for it. At the same time, there are mis-matches, with people often over qualified for the work they do and others with an abundance of qualifications and skills out of the workforce altogether. Moreover, many people are doing jobs that fail to take advantage of the skills they possess, especially the part-time jobs that large proportions of British women do.

1.2 This interest in skills underpinned the set of questions devoted to the topic in the Fifth Sweep of the National Child Development Study for which the Department of Employment is a sponsor. The NCDS is a longitudinal study of people born in the UK in a single week, March 3rd to 9th, 1958. Subsequent surveys have been carried out at ages 7, 11, 16, 23, and most recently, in the Fifth Sweep, at age 33 (Ferri, 1993). In the Fifth Sweep 11,400 cohort members supplied detailed information about their occupational and educational experience. This included their accounts of the skills they thought they possessed, whether they used these skills at work, and whether the skills had improved in the last ten years, i.e. since the previous survey at age 23. There were also many questions on problems encountered with the basic skills of literacy and numeracy.

1.3 One of the difficulties in assessing skills is that they can range from the most general, such as "adaptability", to the highly occupational specific like "joinery". This is why in most "skills audits" skills are inferred from the jobs people do and the qualifications they possess, rather than assessed directly. For the purposes of NCDS, however, building on earlier work in the area of basic skills (ALBSU, 1987; Ekinsmyth and Bynner, 1994), it was decided to try to gain a picture directly of a range of occupationally relevant skills as likely to be recognised by employers and cohort members themselves. Accordingly, following examination of questionnaires used in skills audits and a brain-storming session with ED officials, an inventory of fifteen occupationally relevant skills, ranging from verbal skills to organisational skills, was drawn up (see Appendix 1). The skills

inventory was included in a self-completion questionnaire, which most cohort members, who participated in the survey, completed before being interviewed. Others completed it at the time of the interview, sometimes with the help of an interviewer. For each skill cohort members were asked to indicate whether they were good, fair or poor at the skill, whether they used it at work or elsewhere or not at all, and whether it had improved in the last ten years, stayed the same or got worse.

1.4 The preliminary findings of the NCDS Fifth Sweep were reported in a book, "Life at 33" (Ferri,1993), which was launched at the British Association Meeting in September 1993 and attracted much media interest. The book included a chapter on education and training, in which the answers from two of the sets of skills questions were reported: whether cohort members thought they possessed the different skills; whether each skill had improved in the last ten years (Bynner and Fogelmann, 1993). Comparisons were made between men and women and between London and the North of England.

1.5 The analysis revealed striking differences between men and women in the skills they claimed to possess. and a higher concentration of skills in London. In this report we take the analysis further, first establishing a context for the study by comparing the prevalences of the fifteen skills with those obtained, using an identical questionnaire, in a sample survey of 1640 21-year-olds in the 1970 British Cohort Study (BCS70). We then move on to examine the characteristics of NCDS cohort members with skills, focusing particularly on the highest academic and vocational qualifications achieved, occupational status and type of occupation. Next we investigate the extent to which these factors and family situation were associated with *not* using the skills at work, ie their under-utilisation in employment. We then examine the factors relating to skills improvement, including the education and training undertaken and the possible role of the basic skills of literacy and numeracy in their acquisition. Next we turn to the possible occupational outcome of skill possession or its absence, including, income, promotion, psychological well-being and experience of unemployment .

1.6 The findings are presented in two ways. Figures and selected tables in the text are used to provide the overall picture of skills possession, improvement and use. The more detailed quantitative information is supplied in tables in Appendix 3.

**(a) Skills measurement**

1.7 For certain purposes the skills are grouped into six broad categories identified by factor analysis (Details are given in Bynner and Fogelmann, 1993). This statistical technique analyses the interrelationships among sets variables pointing to those that show relatively high intercorrelations, ie form clusters of variables sharing common characteristics possessed by the same people. In this case each variable is a measure of how good the respondent claimed they were at each skill on a scale of 'good' (4), 'fair' (3) , 'poor' (2), 'do not have the skill' (1), where the numbers in brackets are the scale values. The six skills clusters produced by this means (with the constituent skills shown in brackets) were: 'verbal skills' (writing clearly, speaking clearly); 'construction skills' (using tools properly, reading plans or diagrams, constructing assembling or building things well, carrying out mathematical calculations); ' keyboard skills' (typing or using a computer keyboard, using a computer to solve problems or give information); 'caring skills' (looking after people who need care, giving advice and support to people, teaching or instructing children or adults); ' organising skills' (supervising other people's work or activities, selling products or services, understanding finance and accounts, running an organisation group or firm). Carrying out mathematical calculations was the only skill associated with more than one group - 'construction skills' and 'organising skills' - but for the purpose of our analysis is located with the former group. A measure of the tendency of respondents to possess all the skills or only some of the skills in each group was obtained by assigning a score to each skill which they said they were 'good at'; ie for verbal skills the possible scores were 2 (good at both skills in the group), 1 (good at one skill in the group), 0 (not good at any of the skills in the group. Finally to obtain an overall measure of the absence or presence of skills in general, the raw scores on the four point scales for each skill were aggregated into a single score. For certain analyses, respondents overall skills scores are grouped into four quartile ranges, ie the first quartile range contains the 25% who had the most skills overall and the fourth quartile range, the 25% with the least skills. This grouping enables us to identify the extremes of multiple skills and minimum skills at least as perceived by respondents.

## 2 Skills and Education

2.1 Acquiring a skill is a learning process; hence learning capability is the foundation of the skills people possess. In addition, the school curriculum is itself concerned with imparting certain skills directly, most obviously the 'basic skills' of literacy and numeracy, but a range of other occupationally relevant skills, including in the modern curriculum, computing skills. The vocational curriculum and vocational education and training generally (VET) are targeted at equipping young people with these kinds of skills. Educational qualifications therefore tell us something about both the content of skills that have been acquired and the capability for acquiring them.

2.2 The skills selected for study in the NCDS5 survey included the education-based skills and also a range of others such as supervising, caring, advising and counselling. We start by considering the evidence for changes in the levels - prevalences - of all the 15 skills included in the surveys in men and women over a twelve year period during which major initiatives inside and outside the education system had been undertaken to raise them. We then move on to consider the relation between the different skills and the academic and vocational qualifications that NCDS cohort members had gained.

### (a) Possession of skills

2.3 Figure 2.1a shows the percentages of male and female cohort members who said they were 'good' at each of the fifteen skills. The striking feature of the data is, as reported in *Life at 33*, the clear gender differentiation in the possession of skills. More women than men claimed to be good at speaking and writing, keyboard work, caring, advising, teaching and supervising. In contrast, more men claimed to be good at using tools, working with plans, constructing, calculating, and organising. Differences were much reduced or non-existent in the case of computing, selling and finance.

2.4 Figure 2.1b supplies the comparative data on the possession of skills from the sample of 21 year-olds in the 1970 British Cohort Study (BCS70), who were surveyed at the same time as the NCDS cohort members. Across the twelve years gap separating the two cohorts, an almost identical picture of gender differences is revealed for many of the skills and interesting differences for the others. As the BCS70 cohort, when surveyed, was exactly twelve years younger than the NCDS cohort at the time of the fifth sweep, we might expect the BCS70 cohort to show consistently *less* evidence of skill, but this

Figure 2.1a PERCENT NCDS SAMPLE SAYING 'GOOD AT SKILL'

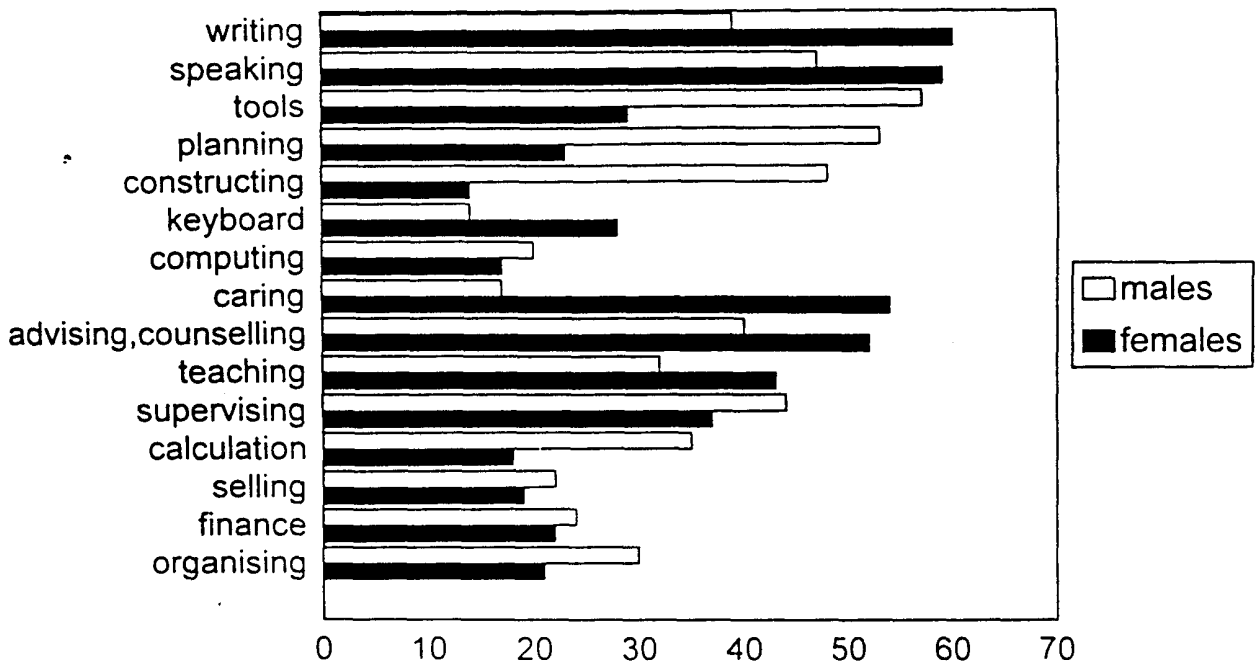



Figure 2.1b PERCENT BCS70 SAMPLE (N=1650) SAYING 'GOOD AT SKILL'

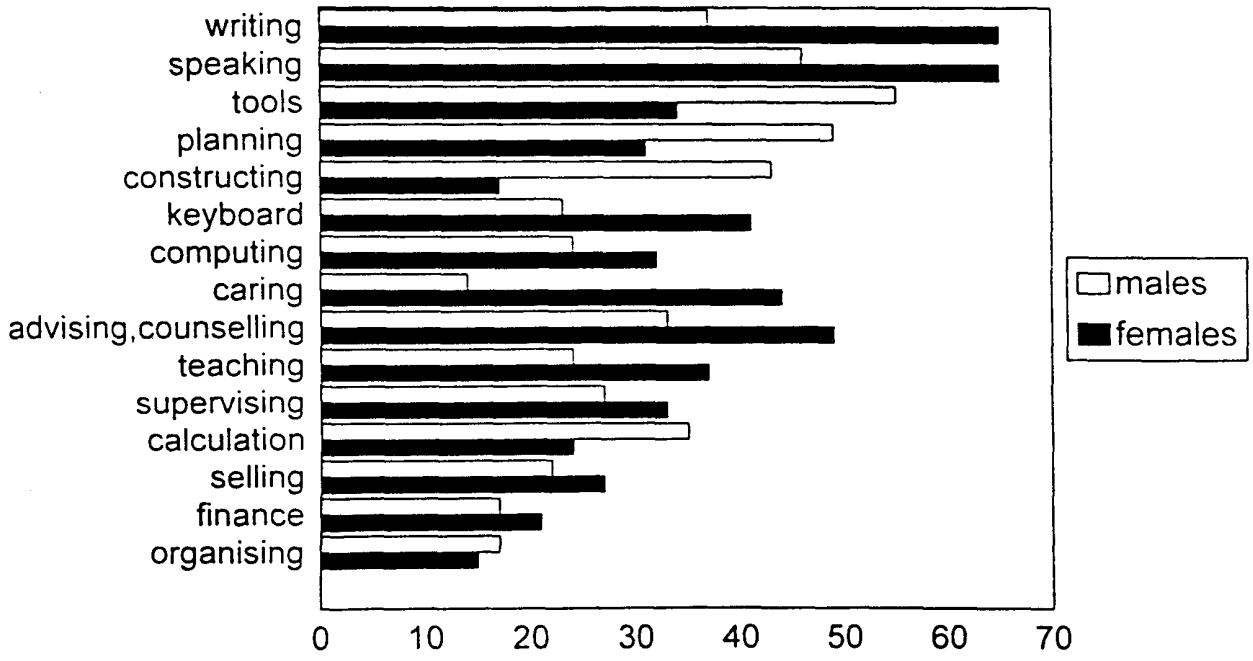



Figure 2.1a PERCENT SAYING 'GOOD AT SKILL'

was only partially true. Notably, among the men, in line with expectation, for every skill except keyboard and computing, the proportion claiming to have the skill was *reduced* between the two surveys. Among the women, however, for every skill except advising, teaching, supervising, finance and organising, the percentages claiming possession of the skill *increased.*

2.5 Though comparisons of this kind between different surveys need to be treated cautiously, the relative improvement of women's skills revealed by the data are in line with the belief that the strategies such as the Technical and Vocational Education Initiative (TVEI) and the Youth Training Scheme (YTS) to improve women's skills in traditionally male domains, from which the BCS70 cohort were beneficiaries, were paying off. The improvement in keyboard and computing skills, central to modern VET, in *both* sexes, is notable in this respect. However the overall picture of gender differentiation remains the same. Women were in the ascendant with respect to verbal skills and interpersonal skills; men surpassed them on practical, and mathematical skills. The marked superiority of men on 'organising' and 'supervising' skills shown for 33 year-olds in NCDS had yet to reveal itself for 21-year-olds in BCS70, presumably because at that age the advantage men have in gaining management positions in the jobs they hold had not yet occurred.

**(b) Skills and qualifications**

2.6 Although, many skills are acquired outside the formal education system, in leisure, at home or at work, we might expect performance in general education to be related to at least those concerned primarily with cognitive functions, especially the verbal and mathematical types of skill. In the case of vocational education, we might expect the connections with a range of occupationally relevant skills to be even stronger. To find out to what extent skills related to the level of qualifications achieved, cohort members' qualifications were classified in two ways. First a five level hierarchy of highest academic qualification achieved was constructed ranging from no qualifications, GCE O-Levels and A-levels and their Scottish equivalents, through to non-degree higher education and degree level higher education. Secondly, highest vocational qualification achieved was classified in terms of the modern NVQ conception, this time taking four levels: NVQ1, NVQ2, NVQ3 and NVQ4. The detailed definitions of these levels are provided in Appendix 2.

2.7 Table 2.1 identifies the skills which differed most between qualification levels. (See tables A1 and A2, Appendix 3, for the actual percentages). There were strong associations between self-reported skills and qualifications, which increase confidence in the validity of the subjective assessments. Thus, as we might expect, writing and speaking skills were associated with the highest academic and vocational qualifications, and practical skills like using tools and keyboard work were associated with lower level qualifications (tools: NVQ2 and NVQ3 for men; keyboard: NVQ1 and NVQ2 for women). More surprisingly, for every skill, where a large difference was revealed between the prevalances of skills at different qualification levels, the academic qualifications discriminated just as well as, or better than, the vocational ones. The one exception was keyboard skills, where the vocational qualifications were the better discriminator. For teaching (women) and organising (men), *only* the academic qualifications were strongly associated with the skills. This gives a pointer perhaps to the reasons why employers place such value on general academic qualifications in their recruitment. At least at the time when the NCDS cohort members were seeking first jobs and moving to new ones, the information carried by academic qualifications was as good a reflection of the skills they thought they possessed as vocational qualifications. It remains to be seen whether the development of National Vocational Qualifications in this decade has changed things.

2.8 As a further extension of this point, it was notable that with respect to associated skills NVQ4 was distinctly different from the lower NVQ levels and was barely distinguishable from the level 3 and level 4 academic qualifications (A level and non-degree higher education). This suggests, in line with arguments for parity of esteem between academic and vocational qualifications, especially in relation to higher education entry, that at this level, the two types of qualification were carrying much the same sort of information about cohort members' skills. Ironically, as these are work-related skills, the vocational qualifications should actually have been carrying *more* information.

2.9 Finally, for a number of skills there was a striking progression in the proportions claiming possession of the skills as the qualification level improved, but not always for both sexes. Thus advising/counselling, teaching and supervising showed this relationship for both sexes and for both types of qualification, though more strongly for the academic ones. On the other hand, calculating, finance and organising showed the relationship more strongly for men. Selling skills had no relationship at all to qualifications.

**Table 2.1.** Skills with over 20% difference between qualification levels

| Males | | | Females | |
|---|---|---|---|---|
| Academic | Vocational | | Academic | Vocational |
| writing (5) | -- | | writing (5) | writing (4) |
| speaking (5) | -- | | speaking (5) | -- |
| tools (3) | tools (3) | | -- | -- |
| plans (4) | plans (4) | | -- | -- |
| construction (3) | construction (3) | | -- | -- |
| -- | -- | | -- | keyboard (2) |
| compute (5) | compute (4) | | compute (5) | -- |
| -- | -- | | care (4) | care (4) |
| -- | -- | | teach (5) | -- |
| -- | -- | | supervise (4) | supervise (4) |
| finance (4) | finance (4) | | -- | -- |
| organise (4) | -- | | -- | -- |

**NOTE:**

Numbers in brackets are the qualification levels associated with the highest prevelance of skill

2.10 Here we have evidence of skills and qualifications going together for men, whereas for women for certain skills there are less clear relationships, suggesting that women may be gaining these skills as much from other experience as from education. It also points to a relationship which occurs repeatedly in these data, the closer connection between men's work, and the skills and qualifications they possess.

2.11 Finally in these data we see communalities between skills and qualifications in certain aspects and dissimilarities in others. Subjectively assessed skills data, though clearly less reliable than the assessment evidence on which qualifications are based, give additional information about capability in different areas of skill , which it would be difficult to obtain from any other source.

## 3 Occupation and Skills

3.1 Although, as we have seen, possession of skills is associated with educational level achieved, this may be as much to do with the jobs that people's qualifications enable them to enter as it is to do with the education process itself. Education and training provide both the basis for acquiring skills and the means of exercising and improving them through work - especially among men, where work, education and skill are more closely integrated than they are for women. In this section we examine in detail a number of facets of the relationship between work and skill.

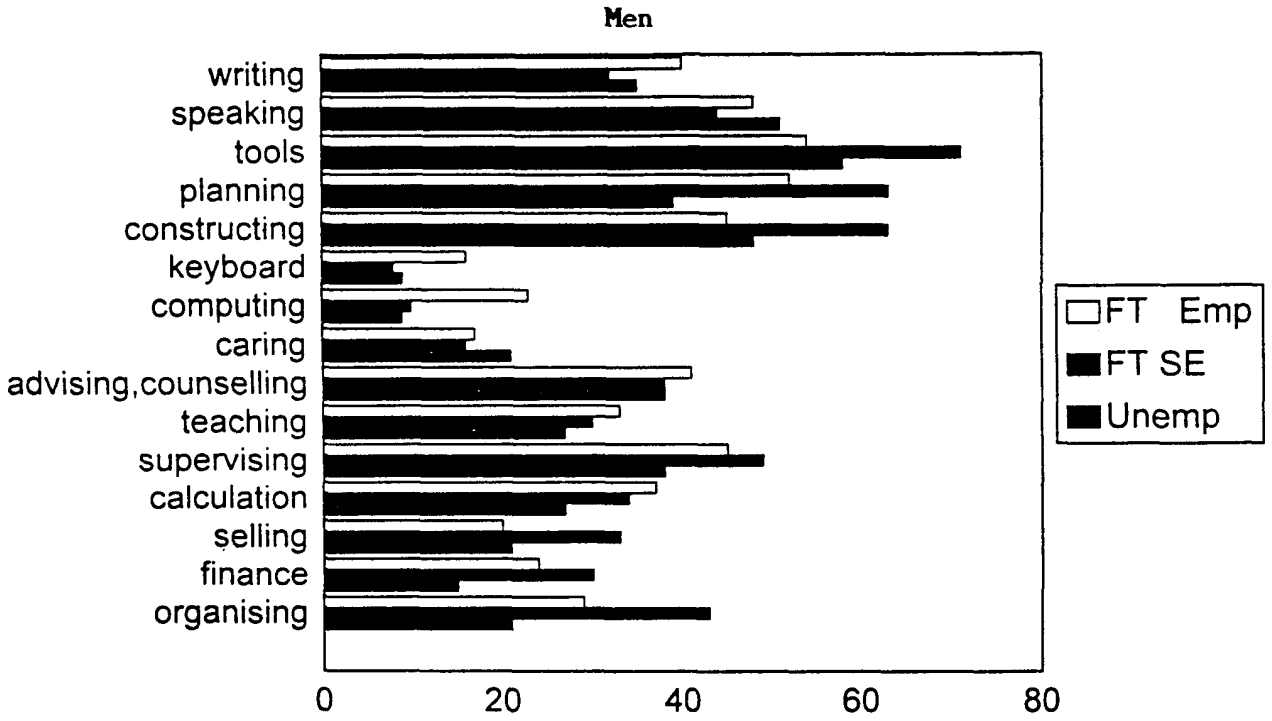
### (a) Occupational Status

3.2 An important issue in relation to the utilisation of skills is the extent to which people who are unemployed , and in the case of women, involved full-time in home care, share the skills of others in employment. For this purpose, we compare the prevalence of skills across the range of cohort members' occupational statuses at the time of the interview: for men, the major categories of full-time employment, full-time self-employment and unemployment (Figure 3.1a); and for women, full-time employment, unemployment and full-time home care (Figure 3.1b). (Table A3 in Appendix 3 gives the actual percentages and sample sizes, and for women, extends the occupational statuses to include part-time employment and self-employment).

3.3 The notable feature of the data is that for certain skills there are no discernible differences across these different statuses especially between the employed and the unemployed and in the case of women, between the unemployed and those engaged full-time in homecare; the main difference is between *self-employed* and other categories. Thus for reading, speaking, tool using, caring, advising, teaching and selling skills, self-employed men *and* women, were the most likely to report having the skills. The only skills where unemployed people appeared to be at a disadvantage were using plans, keyboard, computing, calculating and finance, all of which bar keyboard and computing skills, were particularly common among the self-employed.

3.4 These results suggest that most people who were out of the labour force through reasons of unemployment and through home care were no more lacking in skills than the others. If opportunities could be found to encourage their re-entry to employment, then if self-

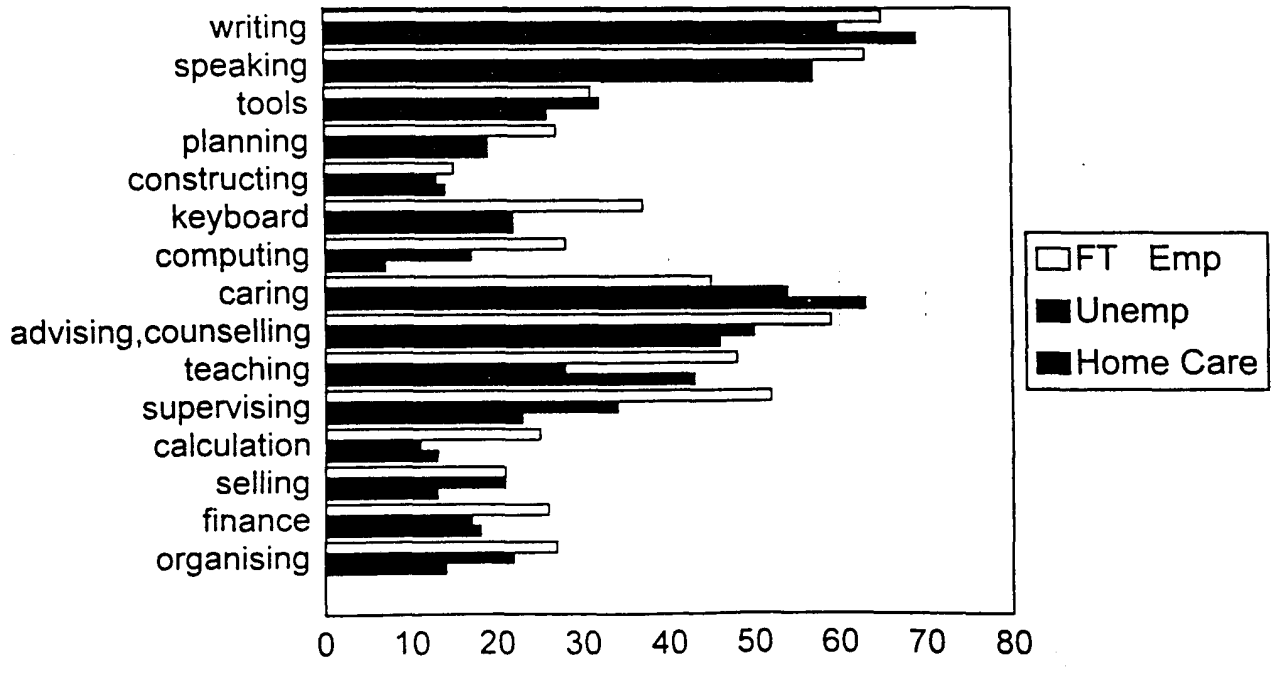
Figure 3.1a SKILLS AND OCCUPATIONAL STATUSES




FT Emp = Full-time Employment; FT SE = Full-time Self-employed ; Unemp = Unemployment

Figure 3.1b SKILLS AND OCCUPATIONAL STATUSES

Women




FT Emp =Full-time employment; Unemp = Unemployment; Homecare =Out of labour market looking after home

perceptions can be believed , they should be able to perform as well as others.

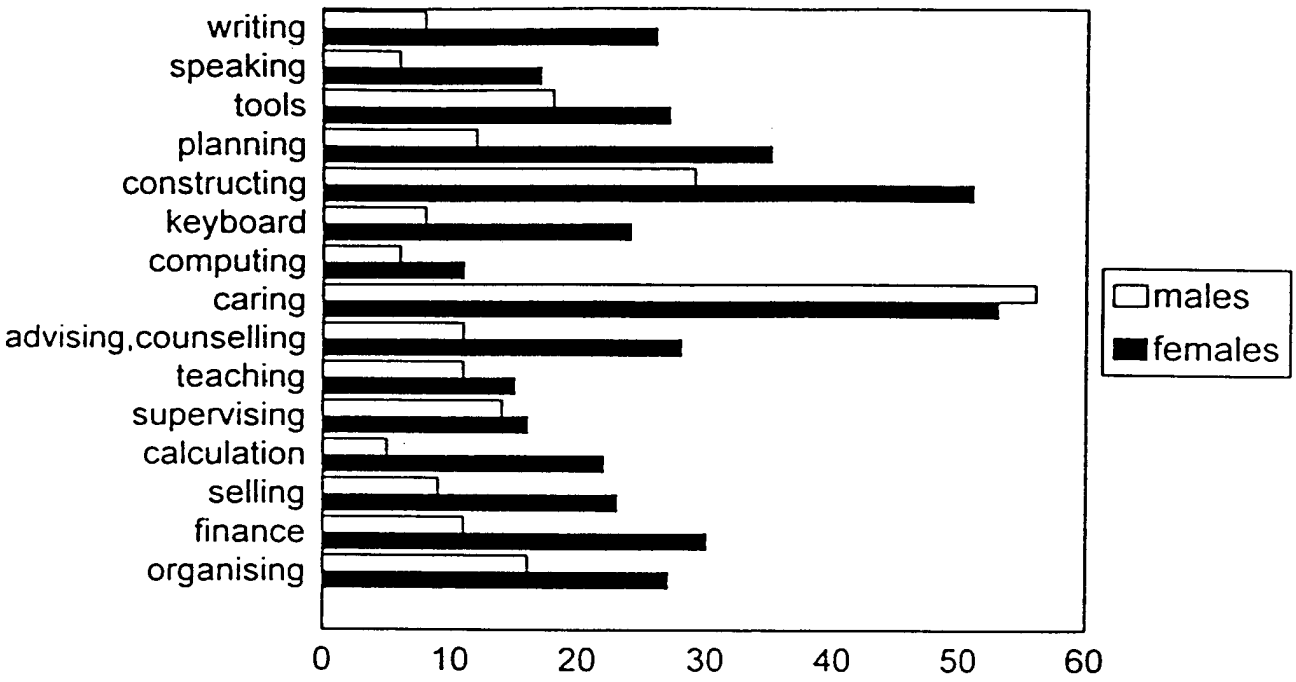
**(b) Skills and Work**

3.5 We examine two features of the use of skills in work: the extent to which skills possessed were *not* applied in the jobs cohort members did and the extent to which this under-utilisation of skills was related to highest level of qualification. We also examine the relation of skills to cohort members' occupations. For the latter purpose, cohort members' occupations were divided into the 9 major occupational groups derived from the full list of occupational codes in the Registrar General's Standard Occupational Classification.

(i) Under-utilization of skills?

3.6 Figure 3.2 shows the percentages of men and women who said they were good at each skill but were *not* using it at work. (Also see table A4, Appendix 3.) Unlike the possession of skills, where men claimed they were good at some skills and women said they were good at others, with respect to where the skills were used, the differences were all in one direction. Consistently higher proportions of women were *not* using the skills compared with men. This was the case particularly for using tools, writing, speaking, making plans, keyboard, advising, supervising, selling and organising. For these skills twice as many women as men said they did not use the skill at work. Thus, for example, half the women who said they were good at constructing things were not using the skill at work compared with 29% of men. In the case of writing, speaking, keyboard, computing, supervising, calculating skills, over 90% of men, who claimed possession of the skill, were using it at work. For the majority of skills, the proportion was less than half this for women. Only for caring skills were a majority of men not using these skills at work, presumably because they exercised these skills, or so they thought, in relation to child care: 56% of men and 53% of women said they were not using this skill at work. For computing, teaching, and supervising there was barely any difference between the sexes.

Figure 3.2 PERCENT SAYING 'GOOD AT SKILL' BUT NOT USING IT AT WORK




3.7. The conclusion to be drawn is that when men have a skill, generally they are using it in their work, whereas large numbers of women with comparable skills do not use them at work. Often, this is because they are applying them in their homes in child care, but more typically it is because they are doing jobs which do not demand their use. There is evidence of a large under-utilised skills pool here which in the case of women extends across a substantial number of skills.

3.8 Tables 3.1 and 3.2 address this point directly. Table 3.1 compares the percentages of men and women with skills in different family situations reporting possession of skills and Table 3.2, the percentages claiming possession of skills, who were *not* using them at work. Four domestic situations are compared for men and women separately: partnership with children; partnership without children; children without partnership; no partnership, no children.

Table 3.1 Percent saying 'good at skill'by family status

| Skill | MPC % | FPC % | MCNP % | FCNP % | MPNC % | FPNC % | MNPNC % | FNPNC % |
|---|---|---|---|---|---|---|---|---|
| writing | 37 | 59 | 18 | 55 | 44 | 66 | 39 | 65 |
| speaking | 48 | 58 | 41 | 59 | 50 | 64 | 45 | 63 |
| Using tools | 59 | 28 | 66 | 30 | 56 | 31 | 50 | 33 |
| using plans | 55 | 21 | 56 | 17 | 55 | 28 | 44 | 34 |
| constructing things | 50 | 13 | 46 | 16 | 48 | 16 | 40 | 16 |
| keyboard | 13 | 26 | 12 | 22 | 18 | 38 | 13 | 33 |
| computing | 19 | 14 | 10 | 13 | 25 | 28 | 18 | 24 |
| caring | 18 | 59 | 22 | 58 | 17 | 37 | 17 | 44 |
| advising | 40 | 49 | 24 | 53 | 43 | 60 | 38 | 58 |
| teaching | 33 | 43 | 28 | 36 | 32 | 43 | 26 | 48 |
| supervising | 46 | 34 | 43 | 28 | 46 | 50 | 36 | 48 |
| calculating | 35 | 17 | 39 | 14 | 39 | 23 | 31 | 24 |
| selling | 23 | 19 | 22 | 17 | 26 | 21 | 17 | 20 |
| finance | 24 | 22 | 24 | 16 | 27 | 28 | 22 | 22 |
| organising | 31 | 19 | 20 | 16 | 34 | 29 | 24 | 27 |
| n (100%) | 3172 | 3689 | 51 | 460 | 944 | 771 | 1029 | 582 |

**NOTE:**

1. MPC = Male with partner and children
   FPC = Female with partner and children
   MCNP = Male with children and no partner
   FCNP = Female with children and no partner
   MPNC = Male with partner and no children
   FPNC = Female with partner and no children
   MNPNC= Male with no partner and no children
   FNPNC = Female with no partner and no children

2. The base for each percentage is obtained by multiplying the base (n) at the bottom of each column by the percentages claiming possession of each skill in Table 1.

Table 3. 2 Percent saying ' good at skill' and not using it at work by family status

| Skill | MPC % | FPC % | MCNP % | FCNP % | MPNC % | FPNC % | MNPNC % | FNPNC % |
|---|---|---|---|---|---|---|---|---|
| writing | 6 | 25 | 11 | 30 | 3 | 6 | 11 | 6 |
| speaking | 3 | 17 | 17 | 20 | 2 | 4 | 7 | 3 |
| Using tools | 23 | 25 | 50 | 49 | 31 | 14 | 23 | 14 |
| using plans | 9 | 28 | 0 | 40 | 14 | 14 | 18 | 13 |
| constructing things | 31 | 39 | 100 | 55 | 37 | 37 | 37 | 45 |
| keyboard | 3 | 17 | 0 | 38 | 7 | 8 | 6 | 0 |
| computing | 3 | 9 | 0 | 33 | 8 | 17 | 0 | 0 |
| caring | 48 | 40 | 0 | 60 | 43 | 75 | 33 | 33 |
| advising | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 17 |
| teaching | 19 | 25 | 0 | 33 | 0 | 33 | 0 | 0 |
| supervising | 0 | 9.1 | 0 | 0 | 0 | 0 | 0 | 0 |
| calculating | 8 | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| selling | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 50 |
| finance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| organising | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**NOTE:**

1. MPC = Male with partner and children
   FPC = Female with partner and children
   MCNP = Male with children and no partner
   FCNP = Female with children and no partner
   MPNC = Male with partner and no children
   FPNC = Female with partner and no children
   MNPNC= Male with no partner and no children
   FNPNC = Female with no partner and no children

2. The base for each percentage is obtained by multiplying the base (n) at the bottom of each column by the percentages claiming possession of each skill in Table 3.1.

3.9. Notably, with respect to the possession of skills, the main distinction related to the gender difference identified earlier. The only skills where women *without* children appeared to have an advantage over women *with* children were reading plans, keyboard, advising, teaching and supervising and calculating - ie, with respect to these skills, the former group of women were closer to men. Whether they had partners made no difference. Only for caring did the advantage lie with the women *with* children. Men's family situation seemed largely unconnected with the possession of skills, except that the small number of men bringing up children on their own reported marginally fewer skills; even caring was only reported by one fifth compared with over half of the women in the comparable domestic situation.

3.10 Much more clear cut differences between domestic situations were apparent with respect to under-utilisation of skills, especially for women (Table 3.2). For the majority of skills, women with children, who claimed possession of the skill, were the ones most likely to be *not* using the skill at work. Whether they were living with a partner made little difference except for using tools, constructing and caring ,where those *without* partners were *less* likely to be using the skill. In the case of supervising, keyboard, calculating, selling, and organising skills the difference was marginally in the other direction, ie having children *and* living with a partner was associated with *not using* the skills. This suggests that it is the investment of time in child care per se that prevents skills being used at work rather than whether there is a partner to share the responsibility. The application of skills in men's work appeared largely unaffected by the presence of children or partnership, though, as for the women, those men *with* children and *without* partners, were generally *less* likely than other men to be using their skills at work.

3.11 Finally to what extent are qualifications associated with the use of skills at work? Do the best qualified manage to apply them more than the least qualified? Table 3.3 shows the relationship for men and women separately, picking out those skills where there was a greater than 15% difference between qualification levels. (See Tables A5 and A6, Appendix 3 for the full set of percentages.) It is notable that for men there was virtually no discernible relationship between qualifications and skills use. But for women, in the case of writing, speaking, using tools, reading plans and constructing. the *lower* the qualification level achieved, the *higher* the proportion who were not using the skill at work. The same relationship existed for the vocational qualifications, but was generally weaker with fewer skills showing the 15% difference. This suggests that the more

**Table 3.3** Skills not used at work with over 15% difference between qualification levels

| Males | | | Females | |
|---|---|---|---|---|
| Academic | Vocational | | Academic | Vocational |
| -- | -- | | writing (0) | writing (0) |
| -- | -- | | speaking (0) | -- |
| tools (3) | -- | | tools (0) | tools (1) |
| -- | -- | | plans (1) | plans (2) |
| construct (3) | construct (1) | | construct (2) | constuct (2) |
| -- | -- | | keyboard (0) | -- |
| care (1) | -- | | care (2) | care (2) |
| -- | -- | | advise (0) | advise (1) |
| -- | teach (1) | | teach (0) | teach (2)) |
| -- | -- | | supervise (0) | -- |
| -- | -- | | calculate (0) | -- |
| -- | -- | | sell (5) | -- |
| finance (1) | finance (1) | | finance (0) | -- |
| -- | -- | | -- | organise (2) |

**NOTE:**

Numbers in brackets are the qualification levels associated with the highest prevalence of **not** using skill

qualified women are, the more likely they are to be using their skills at work. In other words the male position in relation to most skills is approached only by the most qualified women.

(ii)Occupational Groups

3.12 As we might expect, possession of skills related to the occupations that respondents had, but not so much in a one-to one way as concentrating a range of skills in particular types of occupation and single skills into others.

3.13 Tables 3.4a and 3.4b show that management/administrative occupations, professional occupations and associated professional occupations, attracted the widest range of skills. As we might expect, writing and speaking skills were associated with all of these but other skills such as supervising, and organising, were also associated with them. Using tools, working with plans and constructing were concentrated among people in craft occupations (for men). Keyboard skills were clearly tied mainly to clerical occupations (for women).

3.14 To bring qualifications into the picture, Figures 3.3 and 3.4 relate highest academic and vocational qualification achieved to membership of the different occupational groups (Also see table A7, Appendix3). As we might expect, the occupations attracting the highest level of academic qualifications were the professions. Highest vocational qualifications (NVQ4) were associated with associated professional and technical occupations especially among women. The least qualified occupational groups were sales people and plant operatives and people in 'other' occupations. It was notable that substantial proportions of highly qualified people of both sexes appeared in all occupations, suggesting that in many cases they were over-qualified for the jobs they were doing. This was particularly true for women in 'personal service' occupations, where one fifth of the women had NVQ4 compared with one tenth of the men. For most of the other occupational groups there was little difference between the sexes. In fact in the case of 'other' occupations, which included occupations like farming, far more men than women had degree level qualifications.

**(c) Occupation profiles**

3.15 Having skills, as we have seen, is not the same as applying them. A more refined picture of the work-related skills identified with particular occupations is provided by the skills

**Table 3.4.** Percentages claiming to be 'good at skill' by Major Occupational Groups

(a) Males

| skills | Man.. | Prof. | AssProf | Cle/Sec | Craft | Service | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| write | 46 | 55 | 50 | 52 | 25 | 44 | 43 | 28 | 23 |
| speak | 54 | 63 | 53 | 50 | 37 | 53 | 53 | 42 | 34 |
| tools | 44 | 44 | 46 | 35 | 84 | 48 | 43 | 59 | 54 |
| plans | 53 | 64 | 60 | 35 | 62 | 42 | 48 | 41 | 30 |
| construction | 40 | 40 | 41 | 28 | 72 | 36 | 38 | 45 | 41 |
| keyboard | 19 | 26 | 27 | 28 | 5 | 12 | 11 | 5 | 5 |
| computing | 31 | 39 | 37 | 37 | 6 | 13 | 17 | 4 | 4 |
| care | 14 | 24 | 18 | 16 | 12 | 37 | 16 | 17 | 15 |
| advise | 49 | 54 | 43 | 42 | 29 | 59 | 48 | 29 | 21 |
| teaching | 39 | 48 | 41 | 41 | 40 | 51 | 44 | 31 | 22 |
| supervise | 62 | 51 | 41 | 41 | 40 | 51 | 44 | 31 | 22 |
| calculate | 44 | 49 | 42 | 42 | 26 | 24 | 44 | 26 | 23 |
| sales | 45 | 15 | 18 | 13 | 14 | 10 | 74 | 12 | 10 |
| financial | 43 | 33 | 28 | 22 | 21 | 24 | 33 | 18 | 13 |
| organise | 57 | 33 | 28 | 22 | 21 | 24 | 33 | 18 | 13 |
| n (100%) | 1025 | 488 | 488 | 273 | 1247 | 304 | 202 | 599 | 299 |

(b) Females

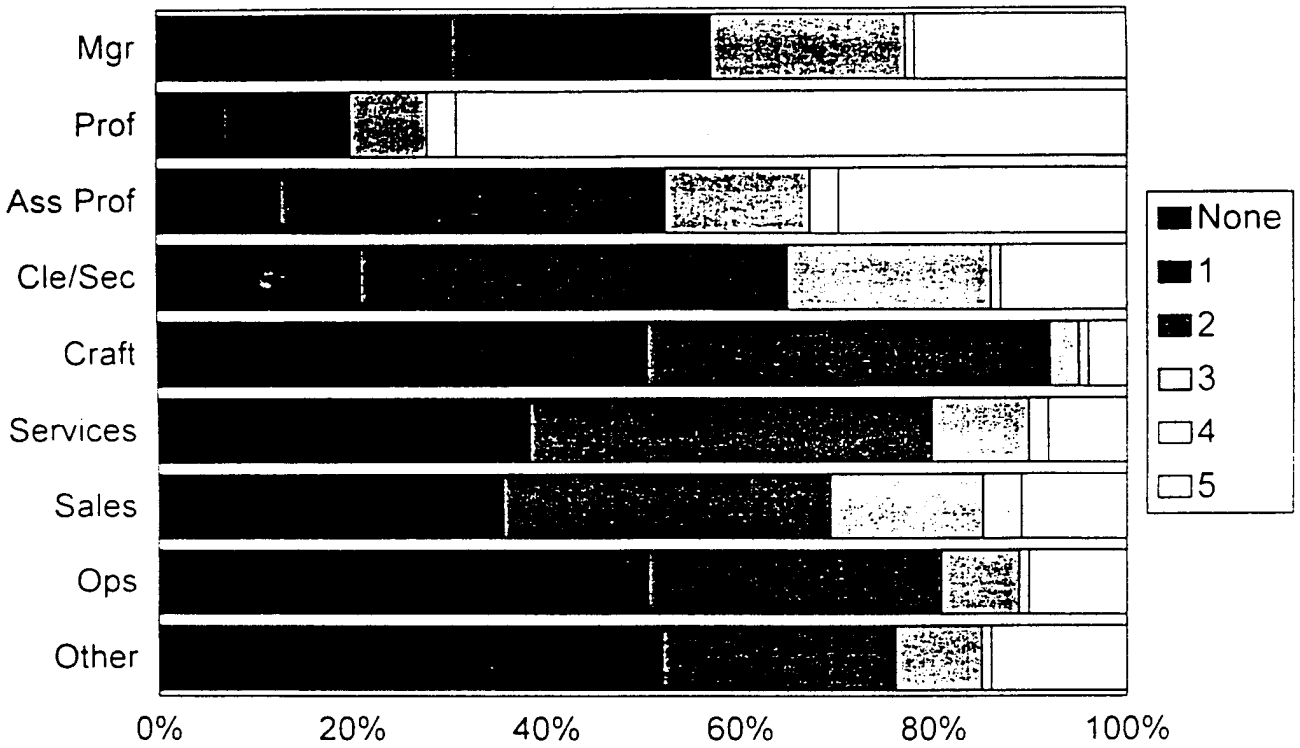
| skills | Man. | Prof | AssProf | Cle/Se | Craft | Servic | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| write | 63 | 76 | 67 | 65 | 54 | 54 | 56 | 48 | 45 |
| speak | 67 | 74 | 64 | 60 | 48 | 56 | 56 | 48 | 43 |
| tools | 27 | 29 | 37 | 25 | 43 | 32 | 29 | 32 | 27 |
| plans | 31 | 42 | 32 | 21 | 22 | 16 | 18 | 14 | 14 |
| construction | 15 | 18 | 16 | 13 | 23 | 13 | 13 | 17 | 11 |
| keyboard | 37 | 20 | 21 | 56 | 13 | 11 | 21 | 11 | 10 |
| computing | 28 | 18 | 17 | 33 | 7 | 4 | 9 | 4 | 3 |
| care | 35 | 57 | 71 | 42 | 44 | 71 | 53 | 53 | 54 |
| advice | 59 | 64 | 72 | 47 | 40 | 52 | 47 | 35 | 37 |
| teaching | 46 | 78 | 57 | 35 | 29 | 48 | 36 | 22 | 26 |
| supervise | 58 | 58 | 55 | 52 | 29 | 34 | 28 | 20 | 18 |
| calculate | 29 | 30 | 20 | 23 | 14 | 10 | 16 | 8 | 9 |
| sales | 35 | 10 | 15 | 14 | 16 | 17 | 46 | 13 | 15 |
| finance | 36 | 19 | 20 | 30 | 15 | 16 | 20 | 20 | 9 |
| organisation | 44 | 29 | 28 | 16 | 15 | 18 | 16 | 9 | 10 |
| n (100%) | 541 | 437 | 634 | 1351 | 134 | 803 | 465 | 239 | 377 |

**NOTE:**

Man. = managers and administrators
Prof. = professional occuoations
Ass.Prof.= Associate professional & technical occupations
Cle/sec = clerical & secretarial
Craft = craft & related
Service = personal & protective service
Sales = sales
Ops = plant & machine operations
Other = other

Figure 3 3a HIGHEST ACADEMIC QUALIFICATION BY MAJOR OCCUPATIONAL GROUPS

males

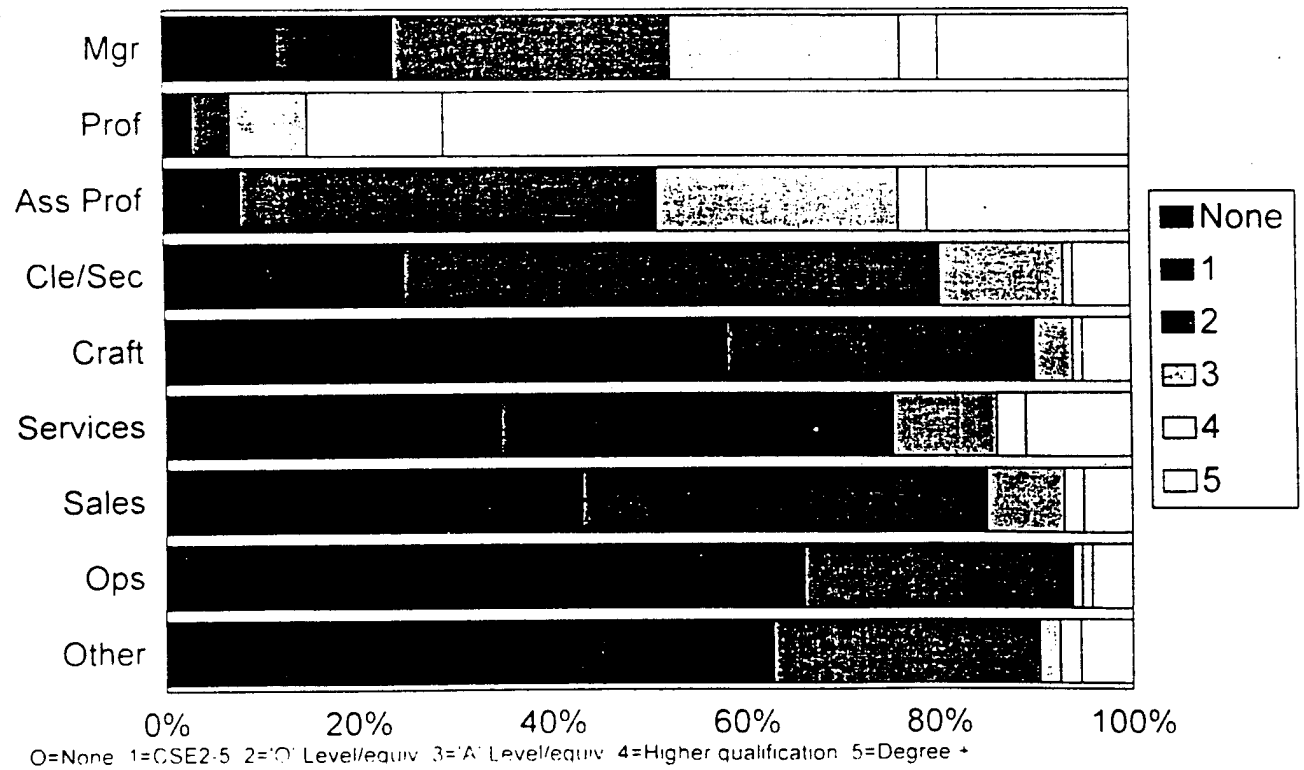



O=None; 1=CSE2-5; 2='O' Level/equiv; 3='A' Level/equiv; 4=Higher qualification; 5=Degree +

Mgr=Managers and Adminstrators; Prof =Professional; Ass Prof =Asssociated Professional/Technical; Cle/Sec=Clerical/Secretarial;Craft=Craft and Related; Service=Personal/Protective Services; Sales=Sales; Ops= Plant/Machine Operatives; Other= Other Occupations

Figure 3 3b HIGHEST ACADEMIC QUALIFICATION BY MAJOR OCCUPATIONAL GROUPS

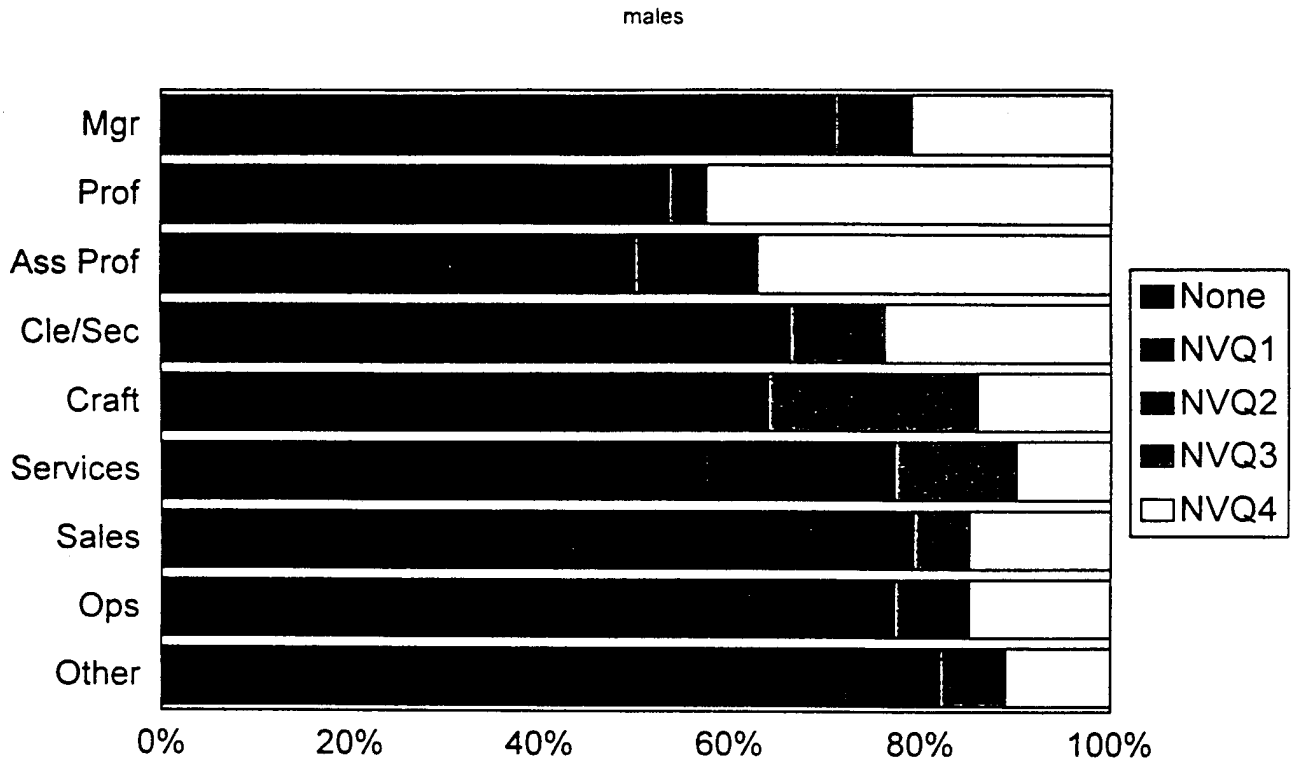
females




O=None 1=CSE2-5 2='O' Level/equiv 3='A' Level/equiv 4=Higher qualification 5=Degree +

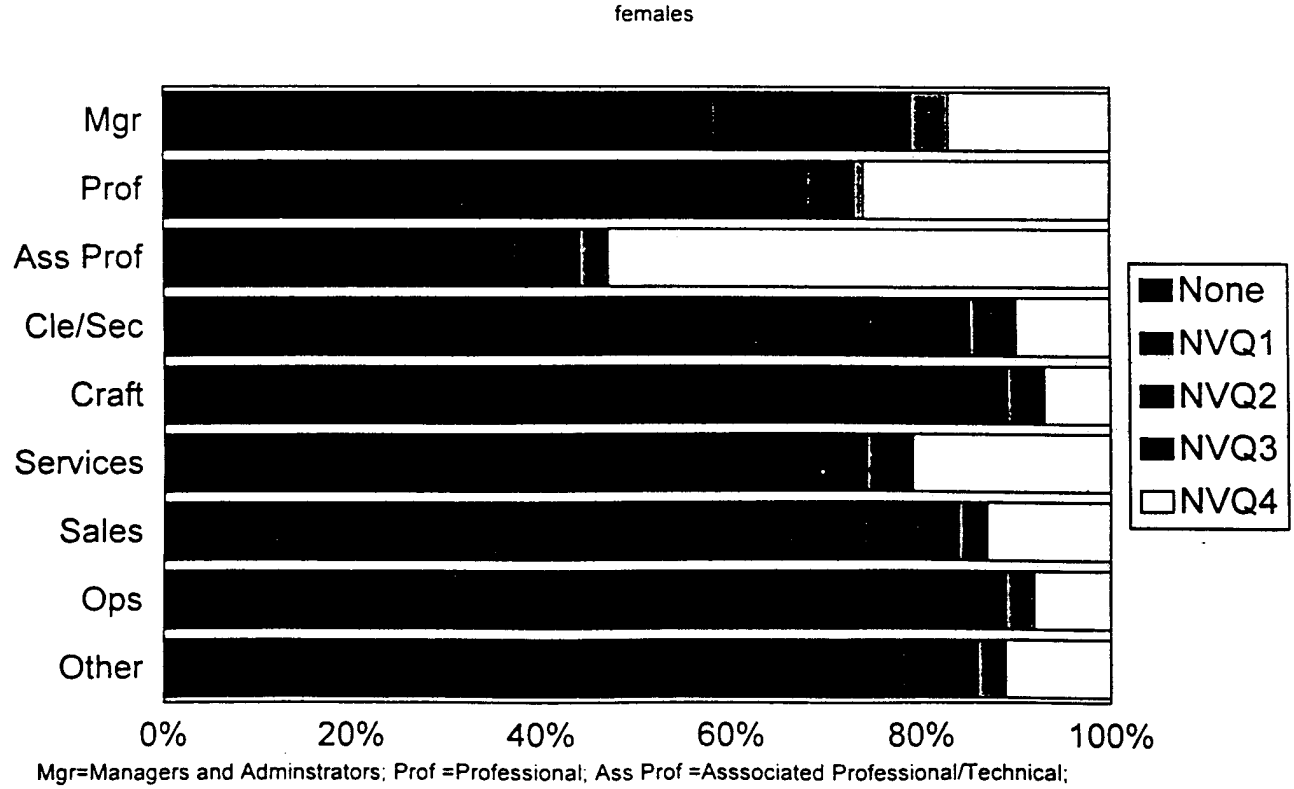
Mgr=Managers and Adminstrators Prof =Professional Ass Prof =Asssociated Professional/Technical; Cle/Sec=Clerical/Secretarial Craft=Craft and Related Service=Personal/Protective Services Sales=Sales Ops= Plant/Machine Operatives Other= Other Occupations

Figure 3.4a HIGHEST VOCATIONAL QUALIFICATION BY MAJOR OCCUPATIONAL GROUPS




Mgr=Managers and Adminstrators; Prof =Professional; Ass Prof =Asssociated Professional/Technical; Cle/Sec=Clerical/Secretarial;Craft=Craft and Related; Service=Personal/Protective Services; Sales=Sales; Ops= Plant/Machine Operatives; Other= Other Occupations

Figure 3.4b HIGHEST VOCATIONAL QUALIFICATION BY MAJOR OCCUPATIONAL GROUPS

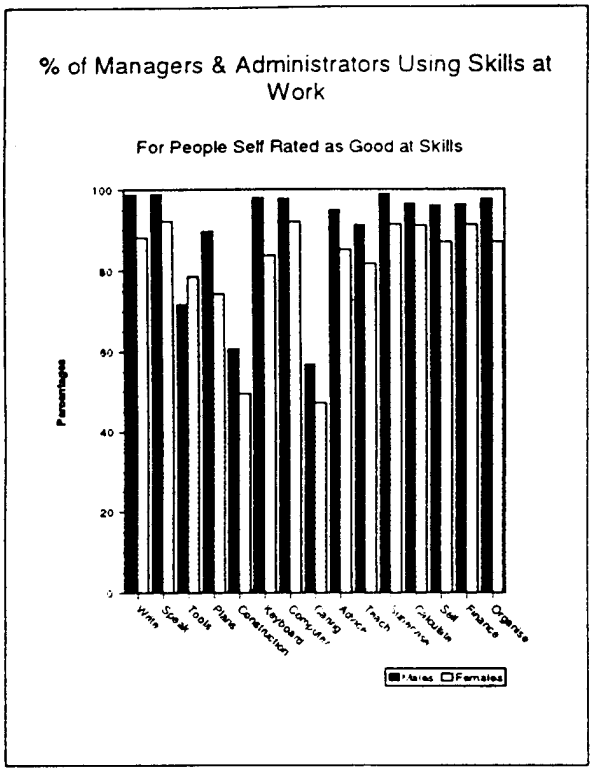



Mgr=Managers and Adminstrators; Prof =Professional; Ass Prof =Asssociated Professional/Technical; Cle/Sec=Clerical/Secretarial;Craft=Craft and Related; Service=Personal/Protective Services; Sales=Sales; Ops= Plant/Machine Operatives; Other= Other Occupations

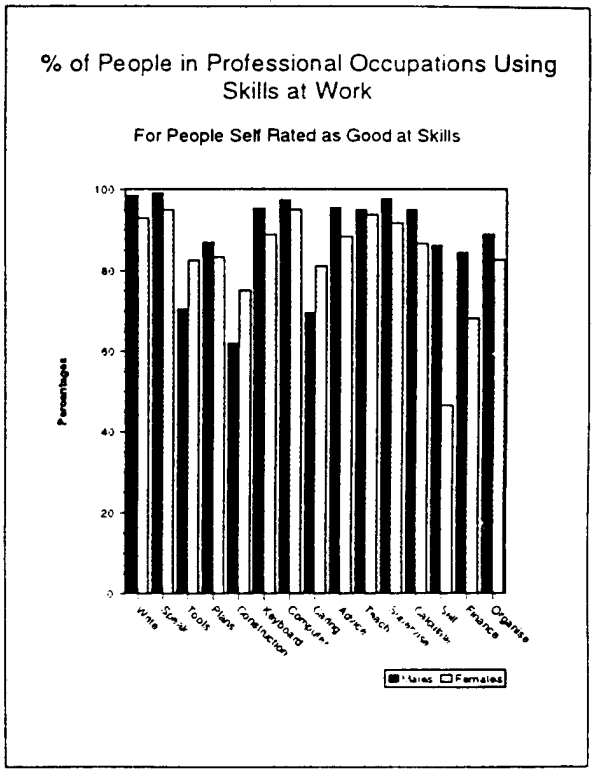
profiles set out for each of the nine major occupational groups in Figures 3.5. These show the percentages of respondents in each occupational group who who said they were *good at* each skill and were *using* the skill at work. (The actual percentages are shown in the Appendix, Table A8).

FIGURE 3.5 PERCENT OF EACH OCCUPATIONAL GROUP SAYING 'GOOD AT SKILL' WHO ARE USING IT AT WORK

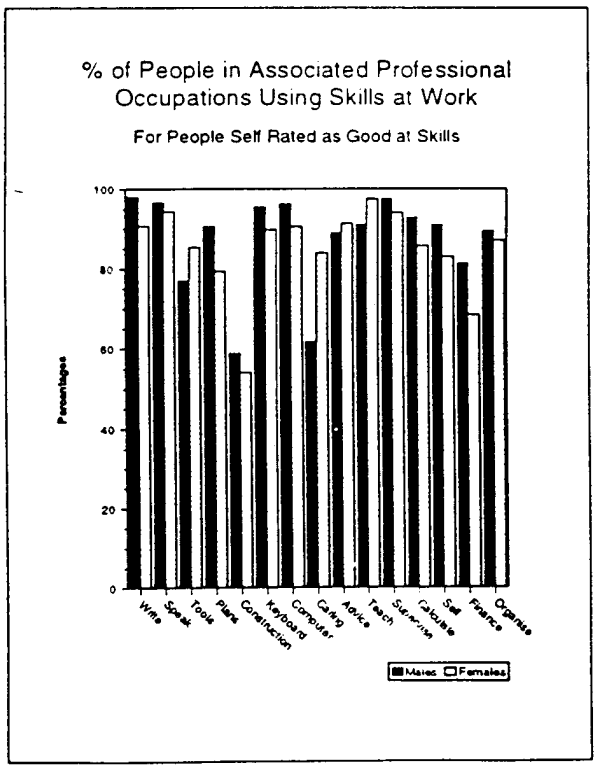
(a)



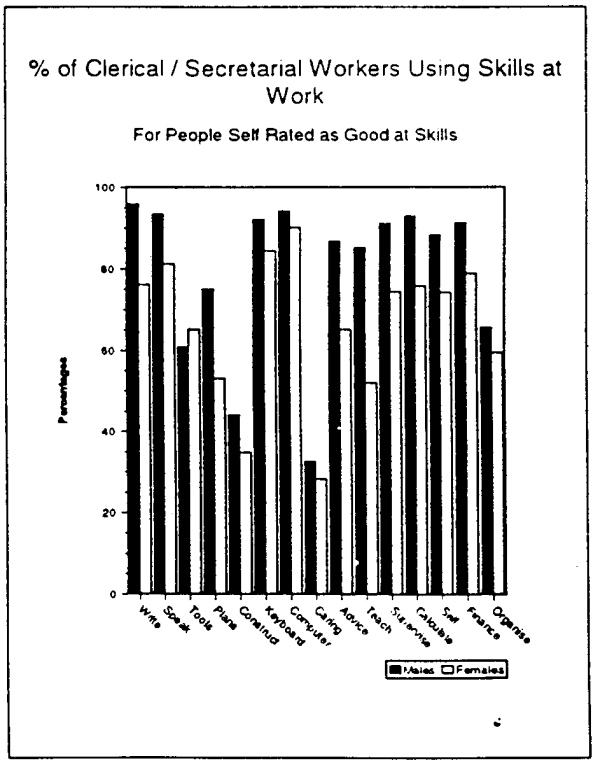

(b)



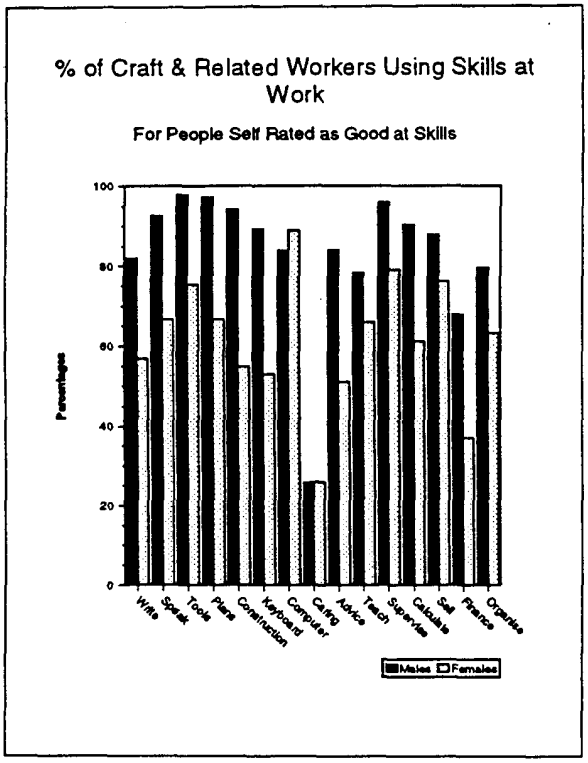

(c)



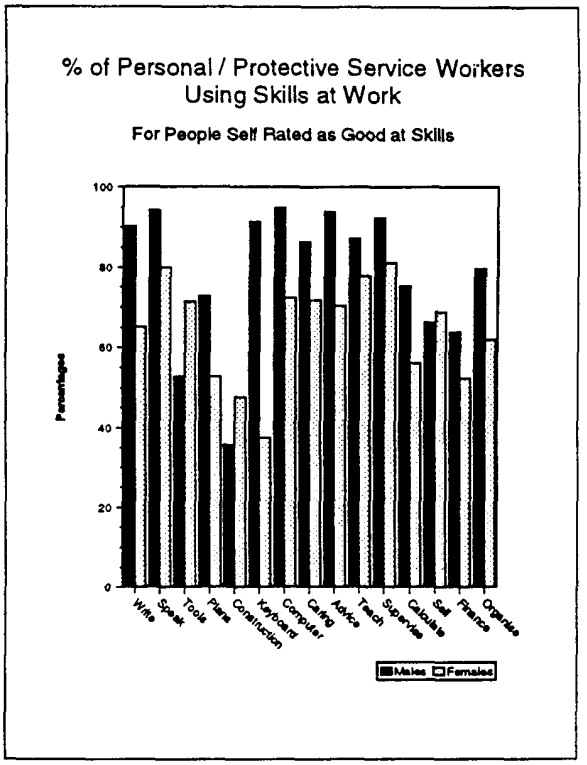

(d)



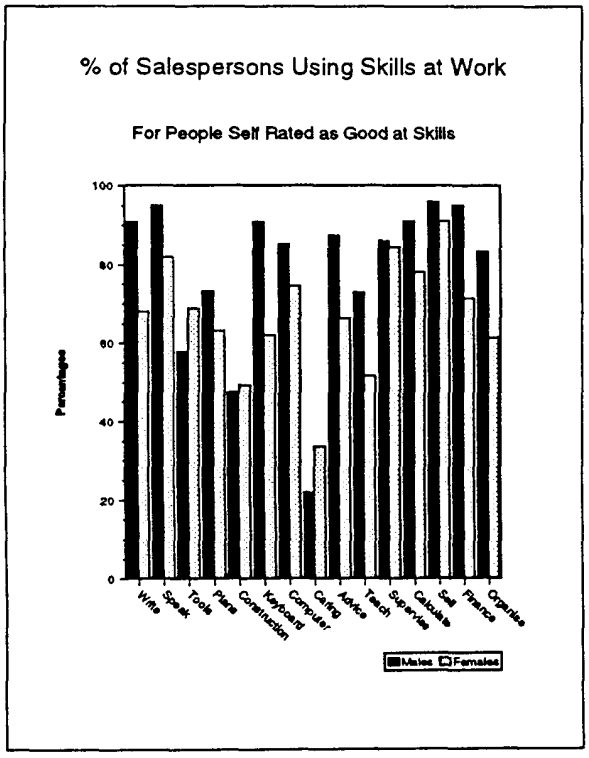
(e)


% of Craft & Related Workers Using Skills at Work
For People Self Rated as Good at Skills
Percentages
100
80
60
40
20
0
Write
Speak
Tools
Plans
Construction
Keyboard
Computer
Caring
Advice
Teach
Supervise
Calculate
Sell
Finance
Organise
Males
Females

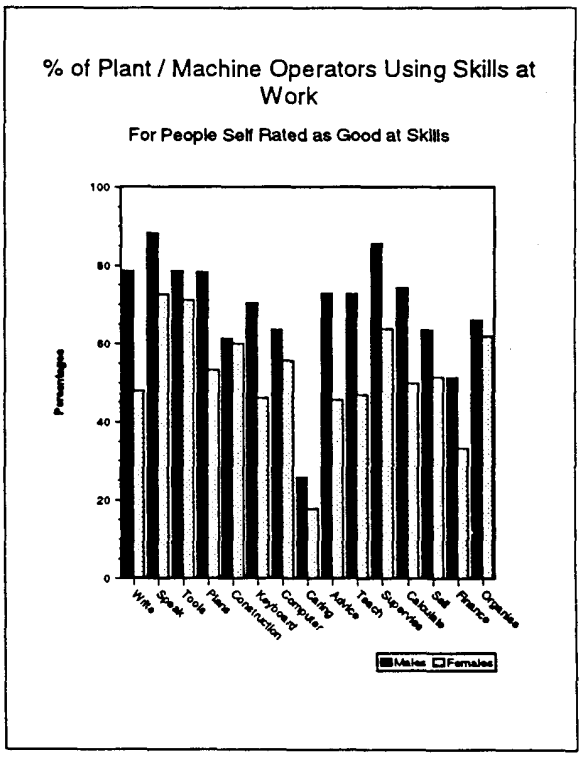
(f)


% of Personal / Protective Service Workers Using Skills at Work
For People Self Rated as Good at Skills
Percentages
100
80
60
40
20
0
Write
Speak
Tools
Plans
Construction
Keyboard
Computer
Caring
Advice
Teach
Supervise
Calculate
Sell
Finance
Organise
Males
Females

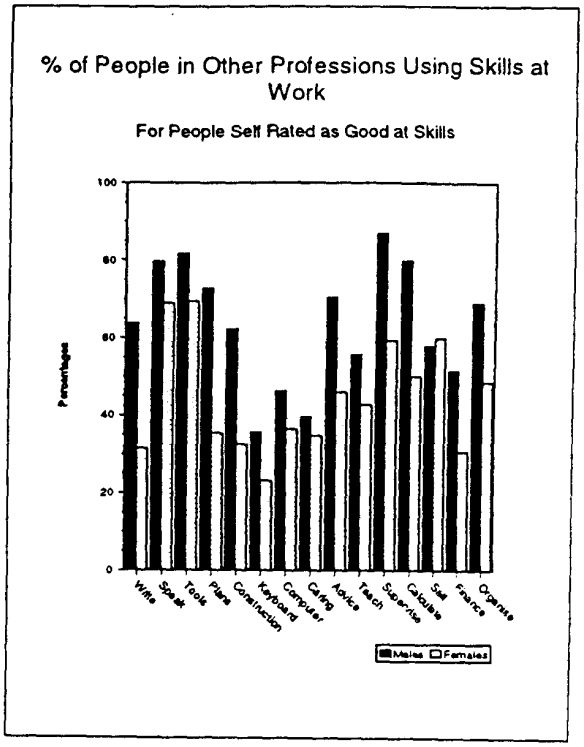
(g)


% of Salespersons Using Skills at Work
For People Self Rated as Good at Skills
Percentages
100
80
60
40
20
0
Write
Speak
Tools
Plans
Construction
Keyboard
Computer
Caring
Advice
Teach
Supervise
Calculate
Sell
Finance
Organise
Males
Females

(h)


% of Plant / Machine Operators Using Skills at Work
For People Self Rated as Good at Skills
Percentages
100
80
60
40
20
0
Write
Speak
Tools
Plans
Construction
Keyboard
Computer
Caring
Advice
Teach
Supervise
Calculate
Sell
Finance
Organise
Males
Females

(i)




3.16 The most striking feature of these profiles was again the wide range of skills associated especially with the higher grade occupations. Gender distinctions were generally less marked for these occupations than they were for the others. Thus the profiles of managers/administrators professionals and associated professionals were quite similar, except that fewer professional women with sales and finance skills claimed to be using them at work and that the use of caring and construction skills was rare among managers/administrators of both sexes. For clerical work the male-female divide becomes more apparent, with in this case, substantially *more* men than women claiming to be using their skills at work. The only skills where both sexes in this group claimed to be using the skills to the same extent at work were keyboard and computing. Perhaps more surprising were the relatively high percentages of men especially in the clerical occupations group claiming use of most of the 'white collar' skills in their work; only organising skills were less frequently mentioned than the others.

3.17 The other occupations showed increasing degrees of specialisation, with tool using, constructing and reading plans going with craft occupations, sales, and finance; and calculating skills going with sales and caring and advising going with protective/personal service occupations. However again, relatively high proportions of male respondents particularly, reported the use of skills of apparently little direct relevance to their work. The verbal skills of writing and speaking featured in most of the occupations, as did supervising and organising. Only caring failed consistently to be applied in clerical, craft work, sales, plant/machine operative and 'other' occupations - the one skill apparently which most cohort members in these occupations perceived as not relating to work.

3.18 Finally for the last two occupational groups, - plant/machine operatives and 'other' occupations - the most notable feature was the reduced skills profile. In comparison particularly with the higher level occupations considered earlier, these occupations were utilising substantially fewer skills. However a relative difference is not the same as a very low level or absence of skills altogether. Perhaps the most striking feature of these occupational skills profiles is that in all occupations relatively high proportions- usually above 50% - at least among men - claimed to be using their skills in their jobs. This points to the objective features of modern employment, which offers little scope for the completely unskilled. It also underlines the centrality of subjectively perceived skill to identity. For a man particularly to have a skill is synonymous with using it at work. For women, perhaps because of the demands of the 'dual career' involving motherhood and employment, there is more ambiguity about the need necessarily to use skills in jobs. This give another pointer to the large underutilised skills pool among women. But it also raises the question of whether women, unlike men, feel the need to use their skills at work.

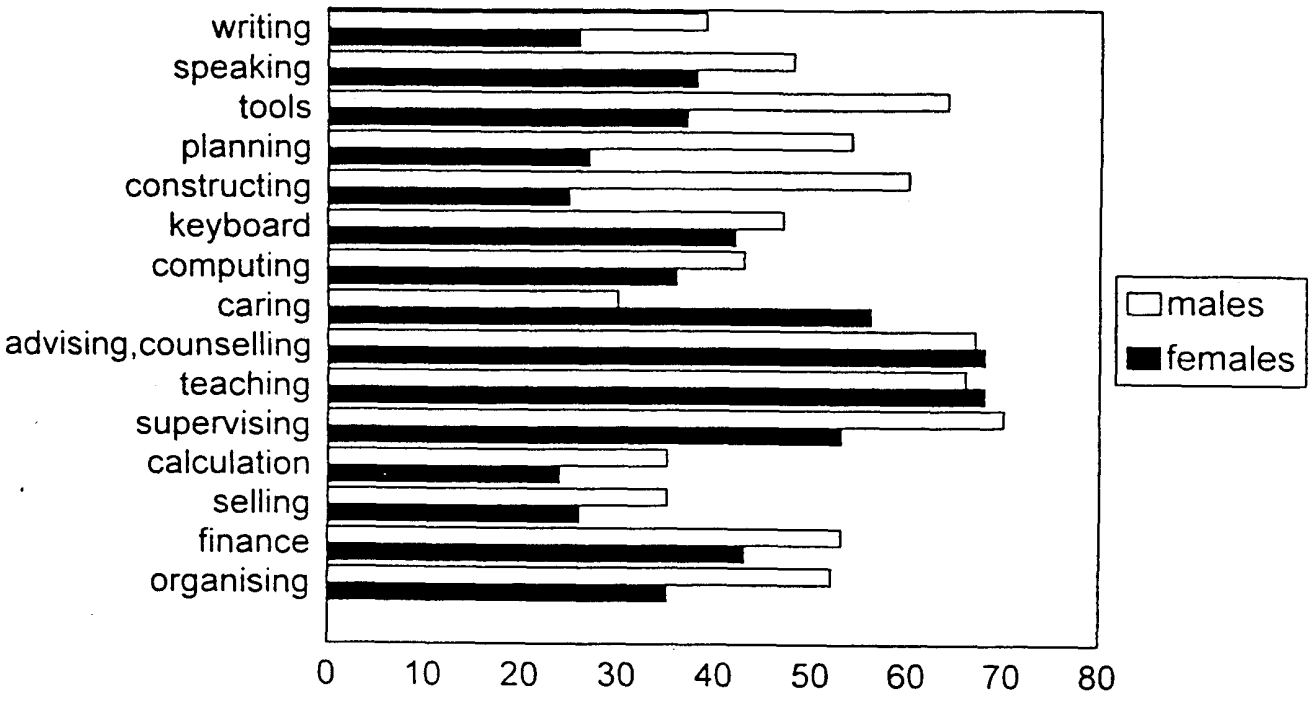
## 4 Improving Skills

4.1 So far skills have emerged as being part a product of education and training and part a reflection of the work people do, with the latter connection being stronger for men than for women. Now we address the origins of skills more directly turning to the influences during adulthood that bring about *changes* in skills. To what extent does men and women's work experience in different occupations raise or lower skills levels and what contribution do education and training courses make to improving them? In which occupations are particular skills improved most? Do difficulties with the basic skills of literacy and numeracy inhibit skills development?

### (a)Changes in the last ten years

4.2 Cohort members were asked whether each skill had improved, stayed the same or got worse over the previous ten years, ie between the ages of 23 and 33? Figure 4.1 shows that, as for the use of skills at work, far more men than women said their skills had improved over the last ten years. Hardly any respondents (less than 5% for each skill) said their skills had got worse; though just over a tenth of women said their keyboard skills and calculating skills had deteriorated and in the order of 8% of both sexes said their writing skills had got worse. The only exception to the general sex difference in skills improvement was caring skills, for which more women than men reported improvement, presumably because of women's more extensive involvement in child care. Organising and selling skills, also showed barely any difference in improvements between men and women. For every other skill men's skills had improved while women's had stayed the same.

Figure 4.1 PERCENT SAYING SKILL IMPROVED IN LAST TEN YEARS




4.3 This gap was much reduced when the analysis was restricted to those actually using the skills at work, suggesting that lack of application of the skill accounted for at least part of the gender difference. Thus approaching 80% of men and only slightly fewer women claimed improvement in writing, speaking, using tools, reading plans, keyboard, computing, advising, teaching, supervising, calculating, sales, finance and organising.

4.4 A further aspect was the domestic situation of respondents. Consistently, the groups reporting lowest levels of skills improvement over the last ten years were women with children. Only for advising, teaching, and calculating did their level of skills improvement approach that of men's and that of women without children; as we might expect only for caring skills did their level of improvement exceed that of other groups.

**(b) Skills improvements and qualifications**

4.5 To what extent had qualifications contributed to the improvement of skills? Surprisingly, as Table 4.1 shows, the relationship was more common and stronger for academic than vocational qualifications. There was a consistent tendency for those who were most academically qualified to claim improvement. For vocational qualifications improvements were related to only a few of the skills: for men, writing, speaking, keyboard, computing, finance; and for women, only advising and teaching. Improvements in using tools, constructing, selling and calculating bore no relationship to vocational qualifications in either sex. In the case of using tools the largest number reporting improvement was actually in the group of men with *no* qualifications! It seems probable that boys who leave school unqualified, focus on this kind of skill as an alternative to academic achievement and seek jobs where they can develop it.

**(c) Education and training**

4.6 Tables 4.2 and 4.3 relate improvement in skills to the number of courses taken leading to qualifications and the number of work-related training courses participated in lasting three days or more respectively. Except for tool using, constructing, selling (both sexes) and for keyboard ( women), where taking courses leading to qualifications bore no relationship to skills improvement, there was a consistently positive relationship. However, the relationship was stronger for women than for men. Much the same picture was evident for work-related training courses, with using tools, making plans, constructing and calculating, showing little relationship, and many of the other skills appearing to gain considerably from training. This was particularly evident for keyboard and computing skills, where with every course taken, substantially more people claimed improvement. Again women, despite their overall lower level of participation, appeared generally to gain more from training than men. For example improvements in finance and selling skills were related to the number of training courses taken by women; but there was no relationship for men.

**Table 4.1.** Skills improved in last 10 years with over 20% difference between qualification levels

| Males | | | Females | |
|---|---|---|---|---|
| Academic | Vocational | | Academic | Vocational |
| writing (5) | writing (4) | | writing (5) | -- |
| speaking (5) | speaking (4) | | speaking (5) | -- |
| tools (0) | -- | | -- | -- |
| plans (4) | -- | | plans (4) | -- |
| keyboard (5) | keyboard (4) | | keyboard (5) | -- |
| compute (5) | compute (4) | | compute (5) | -- |
| advise (3) | -- | | advise (5) | advise (4) |
| teach (5) | -- | | teach (5) | teach (4) |
| calculate (5) | calculate (4) | | calculate (5) | -- |
| finance (4) | finance (4) | | finance (3) | -- |
| organise (5) | -- | | organise (5) | -- |

**NOTE:**

Numbers in brackets are the qualification levels associated with the highest prevelance of skill

**Table 4.2** Percent reporting improvement in skills over last ten years by number of courses taken leading to qualifications

Number of courses

| | Males | | | | | | Females | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | 1 | 2 | 3 | 4 | 5+ | | 1 | 2 | 3 | 4 | 5+ |
| | % | % | % | % | % | | % | % | % | % | % 98 |
| Writing | 46 | 43 | 56 | 53 | 56 | | 33 | 36 | 44 | 50 | 55 |
| Speaking | 54 | 58 | 64 | 59 | 71 | | 48 | 54 | 57 | 62 | 71 |
| Using tools | 61 | 60 | 64 | 69 | 72 | | 39 | 49 | 47 | 52 | 56 |
| Using plans | 56 | 55 | 57 | 59 | 72 | | 33 | 37 | 44 | 55 | 40 |
| Constructing things | 59 | 52 | 59 | 65 | 65 | | 29 | 32 | 26 | 30 | 31 |
| Keyboard | 56 | 60 | 65 | 65 | 68 | | 57 | 60 | 69 | 65 | 61 |
| Computing | 54 | 56 | 57 | 62 | 63 | | 48 | 52 | 58 | 50 | 63 |
| Caring | 30 | 34 | 41 | 40 | 36 | | 60 | 60 | 61 | 67 | 66 |
| Advising , counselling | 70 | 72 | 76 | 79 | 83 | | 75 | 80 | 84 | 80 | 84 |
| Teaching | 70 | 72 | 79 | 81 | 84 | | 76 | 76 | 79 | 80 | 84 |
| Supervising | 74 | 76 | 80 | 88 | 88 | | 64 | 68 | 77 | 72 | 78 |
| Calculating | 38 | 41 | 43 | 48 | 45 | | 26 | 29 | 36 | 40 | 45 |
| Selling | 37 | 31 | 34 | 33 | 39 | | 27 | 25 | 31 | 39 | 30 |
| Finance | 55 | 57 | 60 | 73 | 63 | | 47 | 51 | 53 | 51 | 63 |
| Organising | 55 | 58 | 62 | 65 | 69 | | 46 | 48 | 52 | 61 | 55 |
| n (100%) | 1050 | 430 | 195 | 100 | 143 | | 951 | 418 | 165 | 55 | 69 |

**Table 4.3** Percentage reporting improvement in skills over last ten years by number of training courses lasting three days or more

Number of courses

| Skills | Males | | | | | Females | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5+ | 1 | 2 | 3 | 4 | 5+ |
| | % | % | % | % | % | % | % | % | % | % |
| Writing | 36 | 48 | 46 | 49 | 54 | 30 | 36 | 39 | 37 | 46 |
| Speaking | 47 | 58 | 62 | 70 | 67 | 47 | 53 | 58 | 58 | 65 |
| Using tools | 65 | 64 | 63 | 60 | 60 | 40 | 37 | 40 | 44 | 44 |
| Making plans | 53 | 58 | 58 | 51 | 55 | 31 | 38 | 32 | 31 | 40 |
| Constructing things | 61 | 57 | 60 | 54 | 55 | 28 | 28 | 25 | 26 | 23 |
| Keyboard | 49 | 62 | 67 | 70 | 71 | 53 | 63 | 60 | 68 | 66 |
| Computing | 44 | 58 | 65 | 70 | 67 | 46 | 58 | 57 | 65 | 63 |
| Caring | 31 | 36 | 34 | 37 | 31 | 60 | 64 | 55 | 61 | 49 |
| Advising , counselling | 66 | 74 | 83 | 82 | 79 | 75 | 79 | 80 | 81 | 86 |
| Teaching | 66 | 73 | 76 | 72 | 78 | 74 | 77 | 82 | 76 | 82 |
| Supervising | 70 | 77 | 83 | 85 | 80 | 61 | 71 | 75 | 81 | 85 |
| Calculating | 37 | 37 | 37 | 37 | 33 | 26 | 30 | 35 | 35 | 29 |
| Selling | 35 | 41 | 38 | 43 | 40 | 28 | 31 | 34 | 37 | 42 |
| Finance | 53 | 62 | 65 | 71 | 59 | 45 | 51 | 53 | 57 | 57 |
| Organising | 48 | 58 | 64 | 64 | 64 | 40 | 49 | 50 | 54 | 61 |
| n (100%) | 686 | 435 | 280 | 188 | 732 | 660 | 321 | 194 | 109 | 332 |

4.7 The opportunity to engage in further education and training is contingent to a certain extent on domestic situation. It is often said that women's inability to take advantage of education and training to the same extent as men's is due to child care responsibilities and the lack of facilities to relieve them of child care while participating in a course. If this is the case, then we might expect women with children, and especially those without partners, to be the least likely to attend courses. The data show striking evidence of this especially for courses with qualifications; they also suggest that men with children and without partners face similar problems to women. Thus in the order of three quarters of women (with or without partners), who had children, and the same proportion of men without partners, who had children, had not attended any course leading to qualifications. Among men in partnerships, with children, the percentage non-participation dropped to 65%; for men and women in partnerships without children and single men without children it dropped to below 60%; and for single women without children it was lowest of all at 51%. Training courses showed a similar picture except that the difference here lay between the single men with children and the women (with or without partners), with children, and the rest: over three quarters of the former group had not been on any training courses compared with below 60% for all the other groups. Notably over 13% of the men in partnerships with children and all categories of men and women without children had clocked up 5 or more training courses. These figures are of course partly a reflection of the lower levels of female employment; however they do also underline the point that women without children are no less likely than men to participate in training, and, if anything, are more likely to participate in courses leading to qualifications.

Occupations

4.8 Some indication of the occupations in which training and skills were going together is given by Table 4.4 which gives the percentages of men and women in each of the major occupational groups who claimed improvements in each of the skills. The analysis was restricted to those who said they were 'good at' the skill. Again gender differences were striking, with fewer women than men claiming improvements in most skills , especially in the lower occupational groups. For both men and women keyboard,

**Table 4.4** Percent saying skill improved over last ten years by major occupational groups for those 'good at' skill

Males

| | Man. | Prof. | AssProf | Cle/Sec | Craft | Service | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| writing | 48 | 63 | 62 | 55 | 43 | 42 | 56 | 59 | 52 |
| speaking | 67 | 79 | 62 | 66 | 49 | 62 | 64 | 57 | 54 |
| tools | 79 | 65 | 79 | 77 | 78 | 74 | 82 | 90 | 83 |
| plans | 70 | 59 | 62 | 58 | 74 | 67 | 73 | 69 | 71 |
| construction | 70 | 58 | 64 | 61 | 76 | 64 | 63 | 65 | 70 |
| keyboard | 97 | 100 | 95 | 93 | 93 | 98 | 98 | 91 | 97 |
| computing | 98 | 96 | 96 | 96 | 96 | 94 | 100 | 98 | 94 |
| caring | 71 | 81 | 65 | 75 | 70 | 69 | 72 | 67 | 76 |
| advising | 89 | 90 | 90 | 89 | 86 | 89 | 89 | 85 | 85 |
| teaching | 93 | 95 | 88 | 89 | 90 | 96 | 94 | 87 | 93 |
| supervising | 90 | 95 | 92 | 91 | 88 | 90 | 94 | 87 | 91 |
| calculating | 45 | 40 | 46 | 50 | 51 | 49 | 39 | 49 | 49 |
| sales | 88 | 94 | 91 | 90 | 85 | 83 | 77 | 82 | 87 |
| finance | 89 | 83 | 86 | 86 | 86 | 77 | 86 | 92 | 86 |
| organisation | 96 | 94 | 95 | 94 | 91 | 85 | 95 | 92 | 88 |

Females

| | Man. | Prof. | AssProf | Cle/Sec | Craft | Service | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| writing | 36 | 43 | 33 | 27 | 24 | 32 | 28 | 28 | 30 |
| speaking | 45 | 55 | 50 | 43 | 38 | 40 | 42 | 42 | 33 |
| tools | 59 | 55 | 51 | 54 | 64 | 55 | 67 | 64 | 58 |
| plans | 43 | 45 | 49 | 49 | 55 | 47 | 57 | 61 | 50 |
| construction | 31 | 38 | 73 | 36 | 44 | 36 | 39 | 49 | 40 |
| keyboard | 58 | 89 | 89 | 72 | 89 | 80 | 81 | 76 | 76 |
| computing | 82 | 98 | 95 | 91 | 100 | 92 | 89 | 93 | 96 |
| caring | 73 | 82 | 78 | 75 | 78 | 75 | 76 | 74 | 74 |
| advising | 88 | 91 | 92 | 83 | 86 | 83 | 86 | 79 | 83 |
| teaching | 92 | 90 | 92 | 91 | 90 | 89 | 91 | 93 | 86 |
| supervising | 92 | 89 | 87 | 84 | 88 | 83 | 87 | 82 | 79 |
| calculating | 48 | 29 | 32 | 47 | 61 | 49 | 48 | 36 | 56 |
| sales | 87 | 66 | 82 | 80 | 80 | 79 | 69 | 63 | 82 |
| financial | 77 | 73 | 78 | 76 | 83 | 74 | 80 | 75 | 84 |
| organisation | 87 | 93 | 90 | 86 | 83 | 92 | 94 | 87 | 94 |

computing, advising, teaching, supervising and organising skills had improved for the great majority of cohort members in all occupational groups; for most other skills, whether improvement was reported depended to a certain extent on how closely the skill was identified with a particular occupational group. Thus in personal services the skills that had not improved as much as others were writing speaking, construction, calculating. Near universal improvements were reported in keyboard, computing, teaching, supervising and organisation among men and only slightly less among women. Overall, however, the pattern in these relationships was not always as clear as might have been expected. For all occupational groups some skills improved for most people, while other skills improved for substantially fewer. With a few exceptions, differences between occupational groups with repect to skills improvements tended to be smaller than the differences between the different types of skill.

**(d) Basic skills and work-related skills**

4.9 Finally, in contrast to the measures of qualifications, courses and occupations, it is also interesting to examine the work-related skills of those who felt they lacked basic competence in reading, writing and number work. A whole section of the cohort members' interview was devoted to their perceptions of basic skills difficulties. Although the sample acknowledging skills difficulties was fairly small, less than 10% of the total, these groups do reveal fascinating extra information about the basis of skills acquisition and the scope for improvement. Table 4.5 shows that not only were reading and writing problems associated with poor performance in writing itself but also with speaking, planning, constructing, keyboard, computing, calculating, finance and organising. In the case of using tools for men and , the relationship was substantially in the *opposite* direction, suggesting that in this case the basic skills problem had perhaps stimulated the development of occupational skills based on tools rather than words. For maths skills the key problem areas were making plans, calculating, selling and finance. There was virtually no difference between the problem groups and the total sample, for caring skills.

**Table 4.5** Percent saying 'good at skill' by basic skill problems

| | Reading problem | | Writing problem | | Maths problem | | Total | Total |
|---|---|---|---|---|---|---|---|---|
| Skills | M | F | M | F | M | F | M | F |
| | % | % | % | % | % | % | % | % |
| Writing | 15 | 20 | 15 | 25 | 24 | 46 | 39 | 60 |
| Speaking | 35 | 38 | 36 | 40 | 34 | 48 | 47 | 59 |
| Using tools | 70 | 32 | 65 | 30 | 54 | 25 | 57 | 29 |
| Making plans | 35 | 9 | 45 | 12 | 18 | 5 | 53 | 23 |
| Constructing things | 54 | 17 | 54 | 15 | 35 | 11 | 48 | 14 |
| Keyboard | 7 | 8 | 8 | 11 | 5 | 19 | 14 | 28 |
| Computing | 10 | 6 | 11 | 7 | 4 | 9 | 20 | 17 |
| Caring | 25 | 57 | 21 | 57 | 27 | 61 | 17 | 52 |
| Advising , counselling | 34 | 37 | 34 | 41 | 35 | 50 | 40 | 52 |
| Teaching | 26 | 25 | 25 | 29 | 21 | 23 | 32 | 43 |
| Supervising | 38 | 23 | 39 | 26 | 40 | 23 | 44 | 37 |
| Calculating | 22 | 8 | 25 | 8 | 6 | 2 | 35 | 18 |
| Selling | 22 | 17 | 21 | 17 | 13 | 16 | 22 | 19 |
| Finance | 13 | 8 | 17 | 11 | 5 | 3 | 24 | 22 |
| Organising | 19 | 8 | 23 | 14 | 22 | 12 | 30 | 21 |
| n (100%) | 262 | 142 | 649 | 354 | 117 | 160 | 5139 | 5387 |

## 5 Skills and occupational outcomes

5.1 As we have seen, skills are associated with getting particular kinds of employment and with the education and training that leads to further skills improvement. Their foundations lie in education and they grow through the experience that follows it especially through work. What value are they to people in other terms? Do they, and the training that leads to them relate to the income people get and to their advancement in a job? What connection do they have, if any with psychological well-being? Finally what part, if any does their absence play in unemployment?

5.2 These questions, directed at cause and effect relations, are, of course, impossible to answer categorically from the results of a single survey. Although we know that acquiring qualifications, by and large, precedes getting jobs, the outcomes of jobs, including pay and promotion, are continually changing, as are the skills that employees exercise within them. Nevertheless establishing associations between skills and work outcomes illuminates further the characteristics of people having skills and provides important insights into the dynamics of occupational achievement.

### (a) Income

5.3 For the purposes of this analysis cohort members' earned hourly income was categorised into four groups: less than £5 per hour; £5 to £9.99 per hour; £10 to £14.99 per hour; £15 or more per hour. Table 5.1 shows the percentages of respondents in each of the four income groups who claimed possession of each of the 15 skills.

5.4 As for the relationship between skills and qualification levels, strong linear relationships were apparent for some skills, with skill prevalence *increasing* as income level increased, while for some of the others, highest skill prevalences were associated with the *lowest* income groups. Writing, speaking, keyboard, computing, advising, teaching, supervising, calculating finance and organising fell into the former category of 'high income skills' for men and a narrower range - writing, speaking, reading plans, computing, teaching, supervising and finance - for women. Of the other skills, for men, using tools and constructing, and for women caring, were associated with the lowest income levels. For a number of skills, the highest prevalences occur at the level below the top income level for women, whereas in most cases men's incomes went on improving as skills prevalence increased. This points to a kind of ceiling effect on

**Table 5.1** Percent saying 'good at skill' by gross hourly income

| | Gross hourly income | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Males | | | | | Females | | |
| Skills | <£5 | £5 - <£10 | £10 - <£15 | £15+ | | <£5 | £5 - <£10 | £10 - <£15 | £15+ |
| | % | % | % | % | | % | % | % | % |
| Writing | 31 | 39 | 52 | 61 | | 56 | 66 | 80 | 84 |
| Speaking | 44 | 45 | 58 | 63 | | 53 | 65 | 78 | 89 |
| Using tools | 56 | 58 | 40 | 32 | | 28 | 29 | 27 | 17 |
| Making plans | 36 | 54 | 59 | 55 | | 17 | 29 | 44 | 47 |
| Constructing things | 42 | 48 | 37 | 33 | | 14 | 13 | 15 | 19 |
| Keyboard | 7 | 14 | 28 | 33 | | 27 | 35 | 34 | 24 |
| Computing | 10 | 20 | 42 | 50 | | 13 | 27 | 33 | 38 |
| Caring | 19 | 17 | 15 | 9 | | 53 | 52 | 39 | 36 |
| Advising , counselling | 29 | 41 | 51 | 51 | | 44 | 64 | 73 | 60 |
| Teaching | 23 | 33 | 40 | 37 | | 34 | 53 | 64 | 68 |
| Supervising | 32 | 45 | 52 | 61 | | 28 | 54 | 63 | 65 |
| Calculating | 24 | 36 | 47 | 60 | | 15 | 25 | 36 | 30 |
| Selling | 17 | 17 | 27 | 36 | | 20 | 17 | 20 | 17 |
| Finance | 14 | 22 | 37 | 54 | | 19 | 26 | 34 | 38 |
| Organising | 17 | 26 | 40 | 56 | | 15 | 21 | 42 | 31 |
| n (100%) | 871 | 2194 | 596 | 142 | | 2265 | 1387 | 230 | 37 |

incomes that may be operating in relation to some skills for women. It may be that because large numbers of women had not been exercising the skill continuously in work, even though good at the skill, they could not achieve the highest level of income with it.

5.5 The data also point to a degree of variability in the skills and income relationships, which are masked in the well-established connection between income and qualification level on which 'human capital' theory is primarily based ( ie that education and training pays off through the personal resources it gives to individuals and the value attached to these resources in the labour market). Figures 5.1 and 5.2 shows the percentages in each of the four income bands who had reached different levels of academic and vocational qualifications respectively. A strong linear relationship is apparent for both men and women: as both academic and vocational qualification levels improved, income increased.

5.6 To what extent does this advantage of the qualified with respect to income carry through to further education and training during adulthood? As Figures 5.3 and 5.4 shows, the relationship was, if anything, even stronger. For men there seemed to be an exceptional advantage in going on training courses, whereas for women it was the courses leading to qualifications which showed the stronger relationship with income.

5.7 In interpreting these figures relating income to skills and education and training, we need to bear in mind the caution stated earlier. We cannot conclude that acquiring skills through education and training or other means *produced* the higher income. Income is fundamentally a property of the jobs people do and their status within them rather than their personal characteristics per se. Although the attributes embodied in qualifications provide access to different kinds of jobs, and education and training within the job are associated with the progression in it that leads to higher income, the skills themselves are continually changing in response to the demands of the job itself. In this sense therefore skills may be as much a consequence as a cause of high income. Nevertheless the strongly differentiated nature of the relationships between different skills and income, suggests that there is more to it than this: acquisition of particular skills is an important element of income generation.

Figure 5.1a HIGHEST ACADEMIC QUALIFICATION BY GROSS HOURLY WAGE

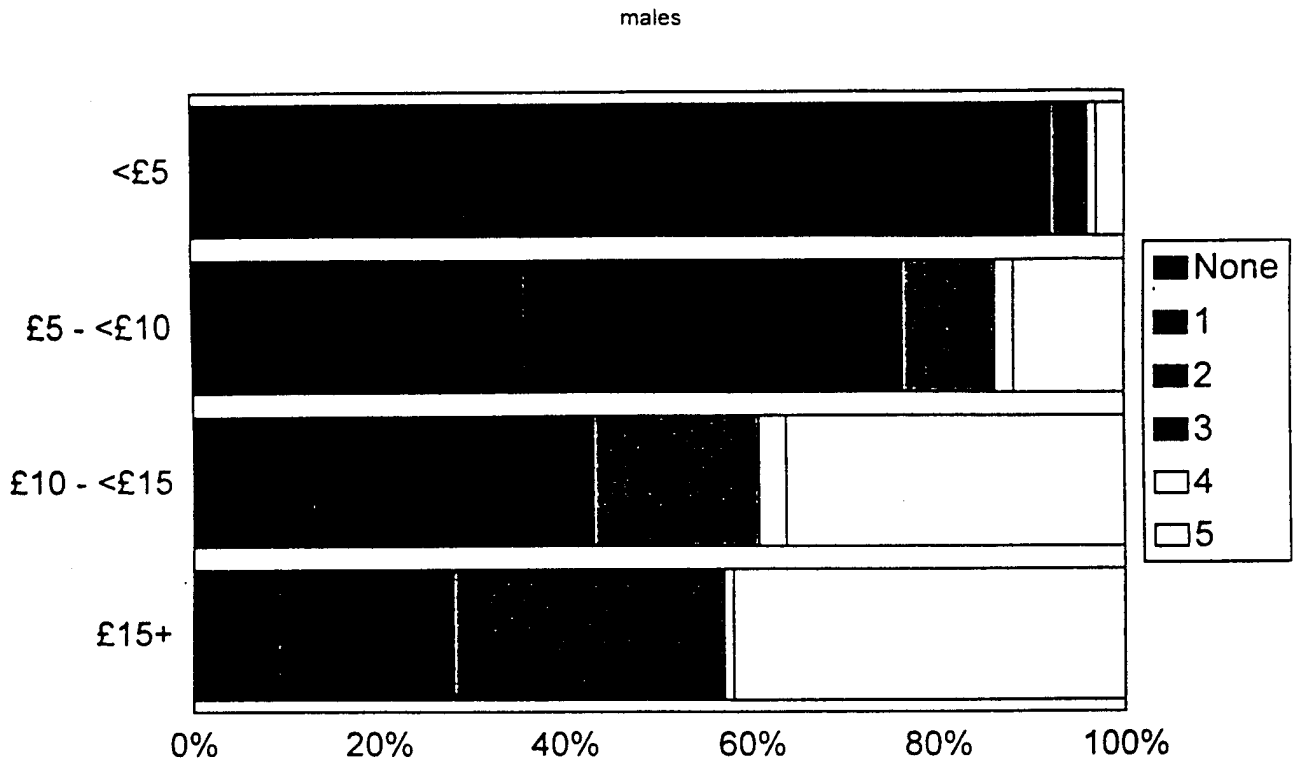



Figure 5.1b HIGHEST ACADEMIC QUALIFICATION BY GROSS HOURLY WAGE

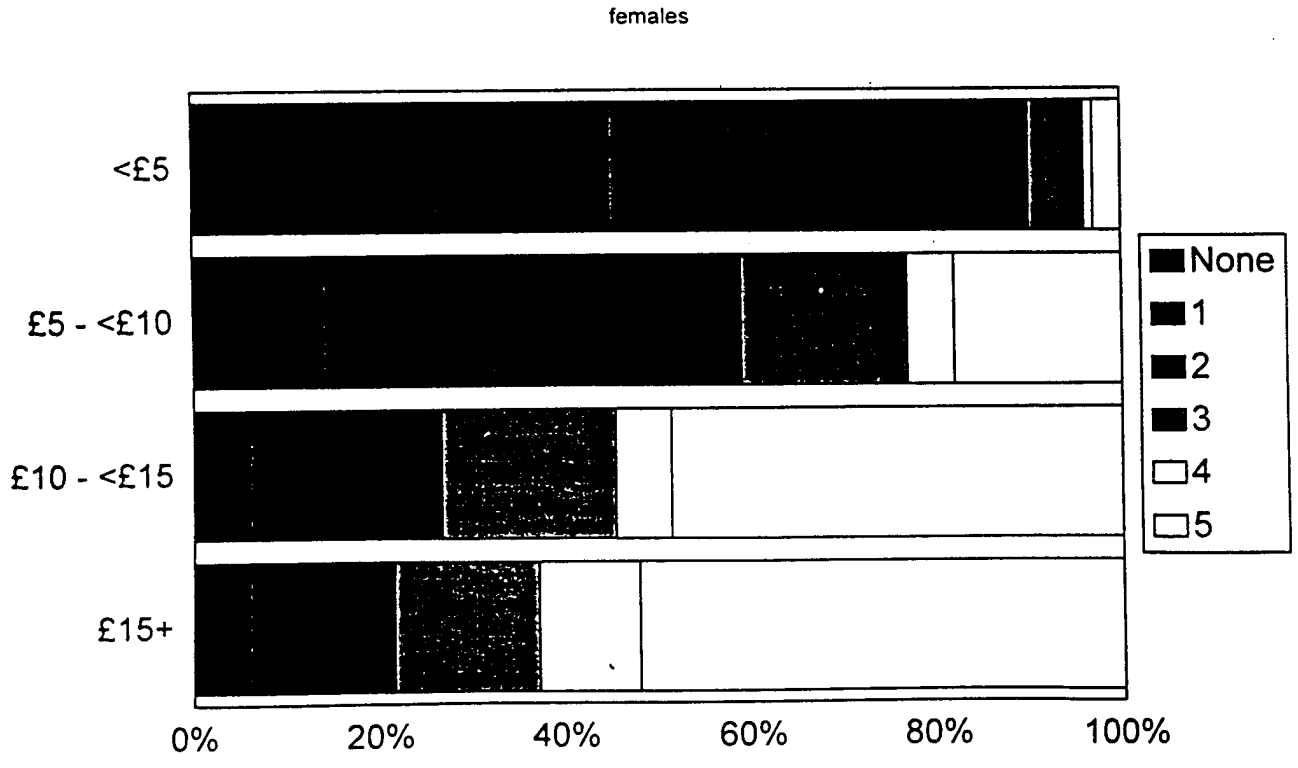


Figure 5.2a HIGHEST VOCATIONAL QUALIFICATION BY GROSS HOURLY WAGE

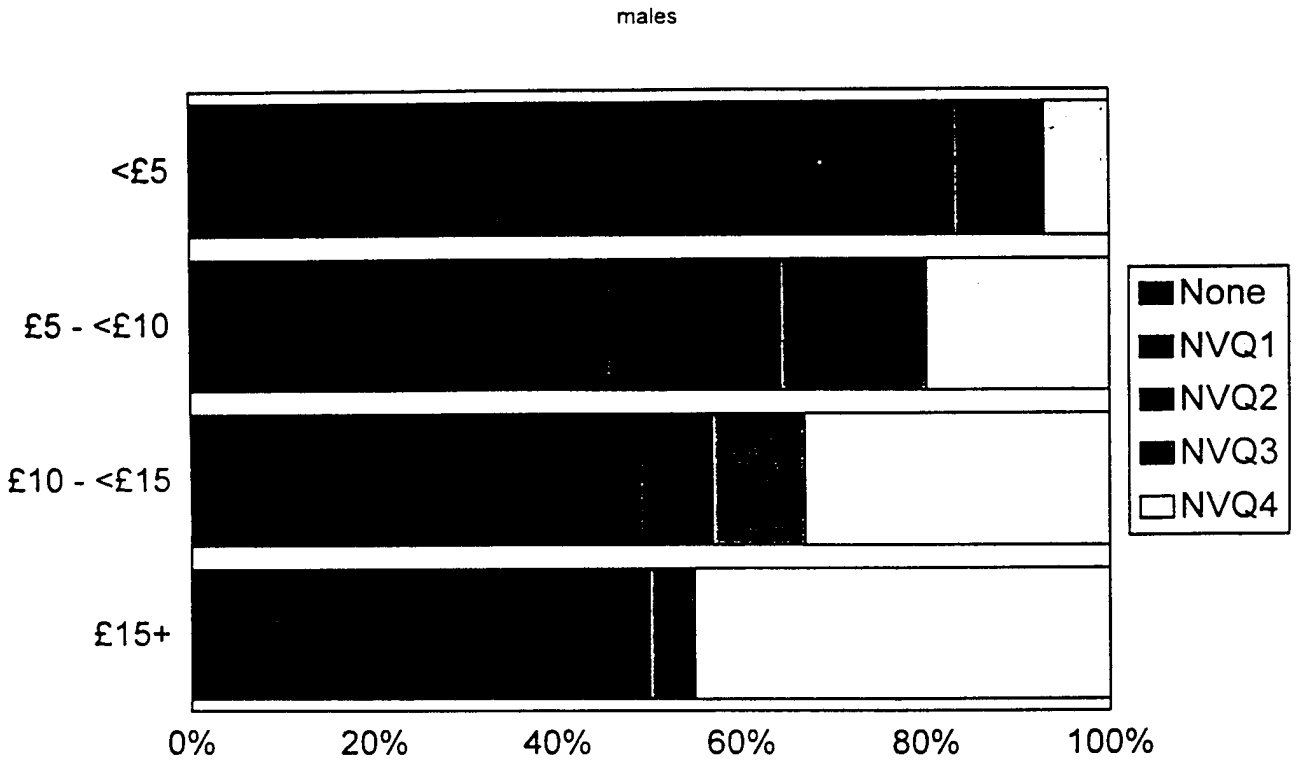



Figure 5.2b HIGHEST VOCATIONAL QUALIFICATION BY GROSS HOURLY WAGE

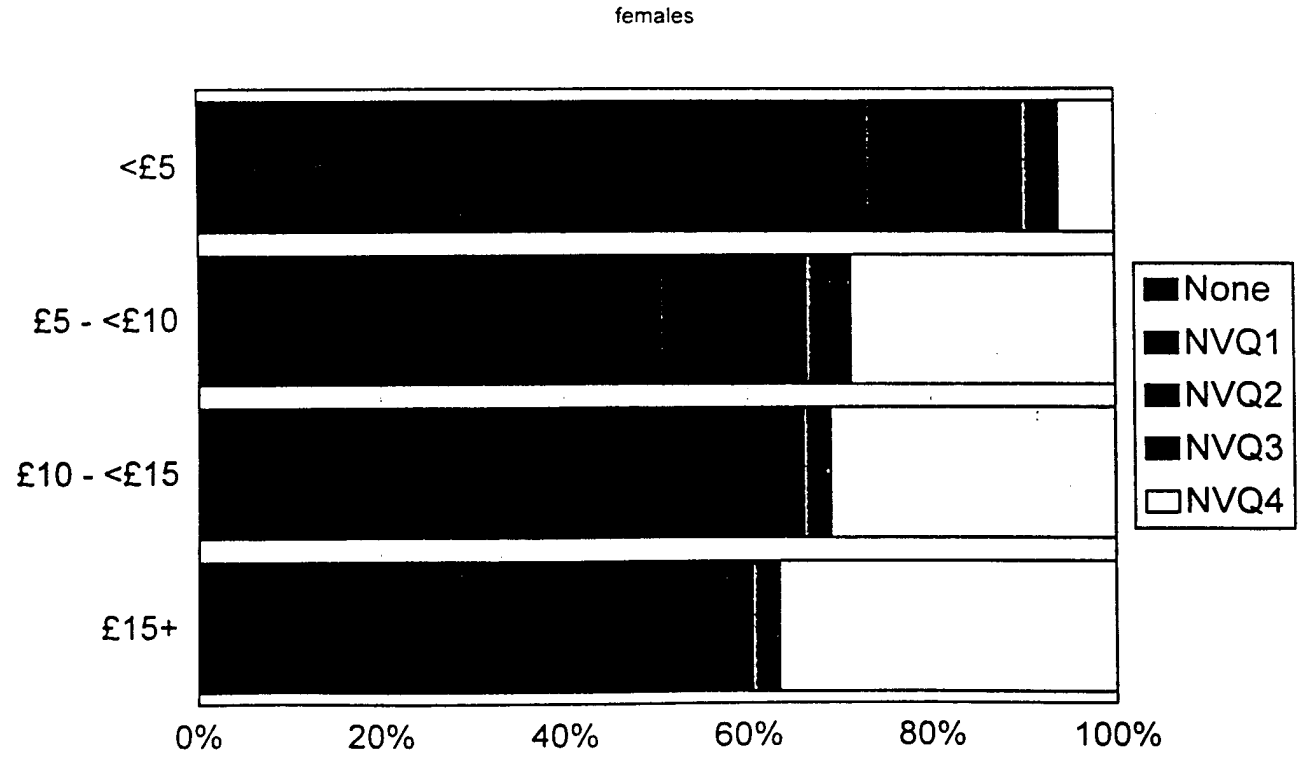


FIGURE 5.3a

Percentage earning less than £5 per hour

by Number of Qualified Courses

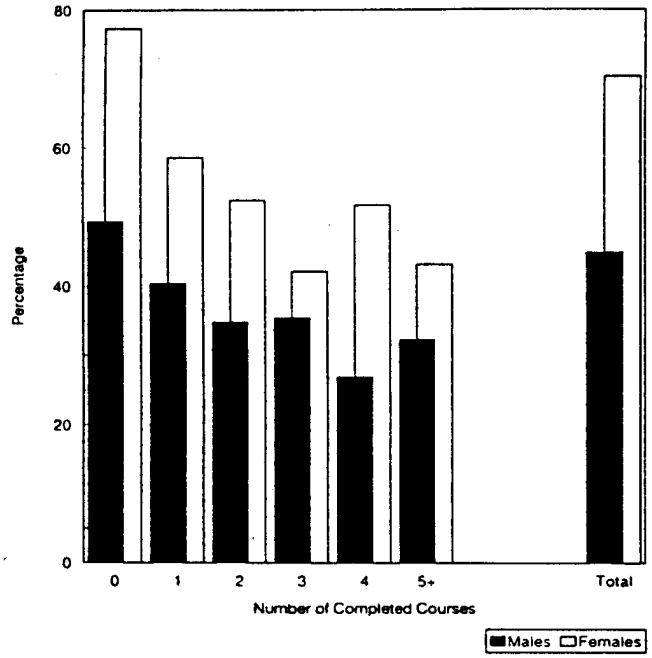



FIGURE 5.3b

Percentage earning less than £10 and more than £5 per hour

by Number of Qualified Courses

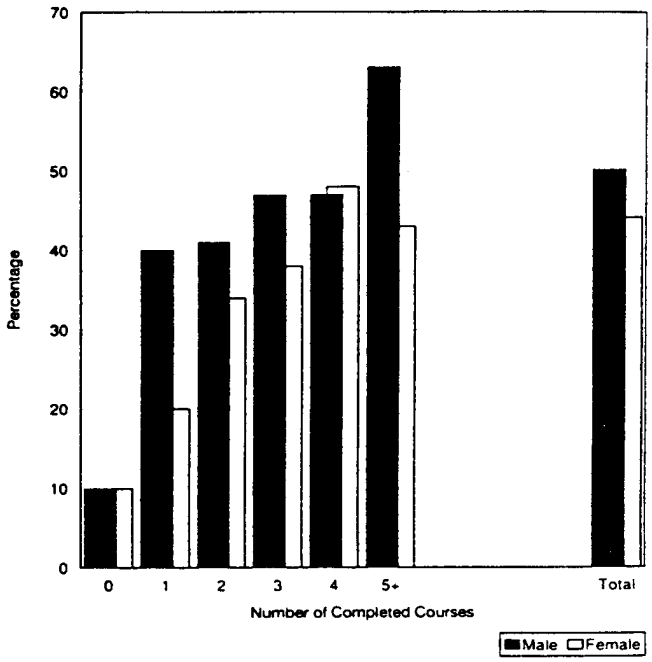



FIGURE 5.3c

Percentage earning less than £15 and more than £10 per hour

by Number of Qualified Courses

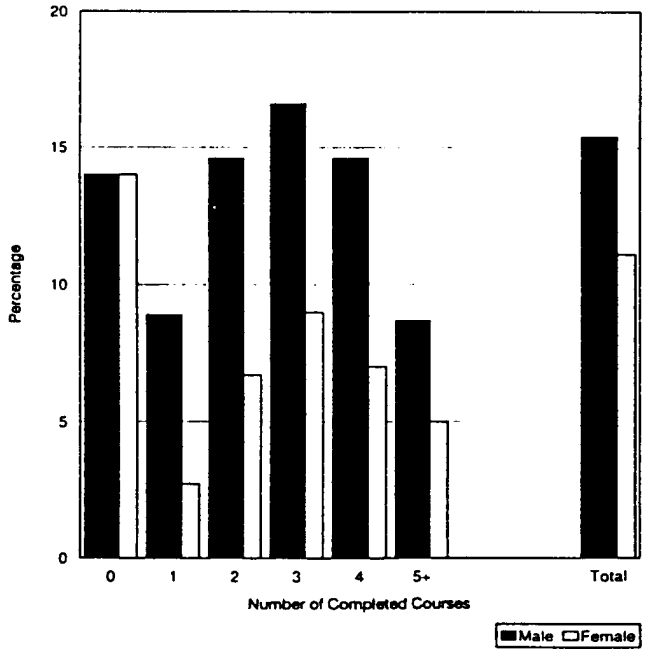



FIGURE 5.3d

Percentage earning more than £15 per hour

by Number of Qualified Courses

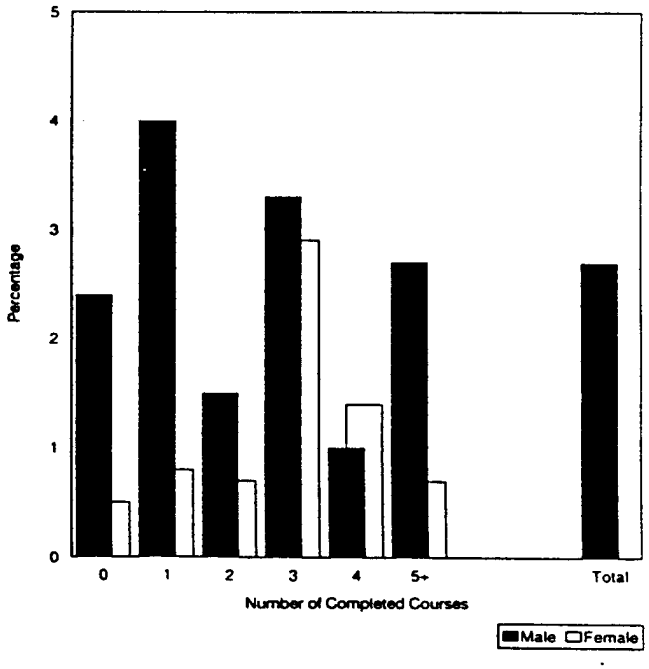


Figure 5.4 Hourly earnings by training courses lasting three days or more

FIGURE 5.4a

Percentage earning less than £5 per hour

By Number of Training Courses

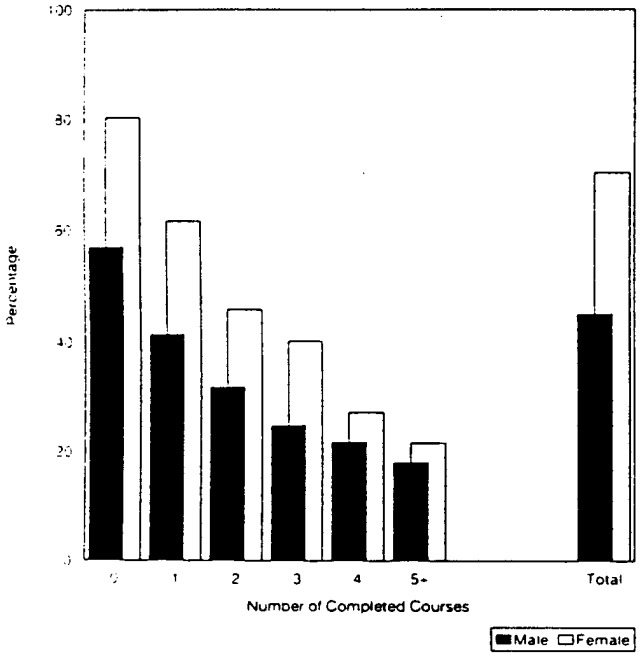



FIGURE 5.4b

Percentage earning less than £10 and more than £5 per hour

By Number of Training Courses

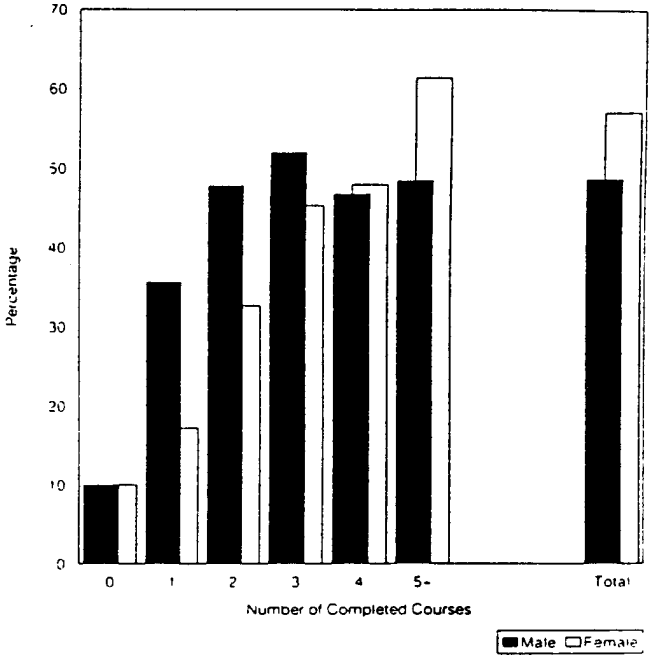



FIGURE 5.4c

Percentage earning less than £15 and more than £10 per hour

By Number of Training Courses

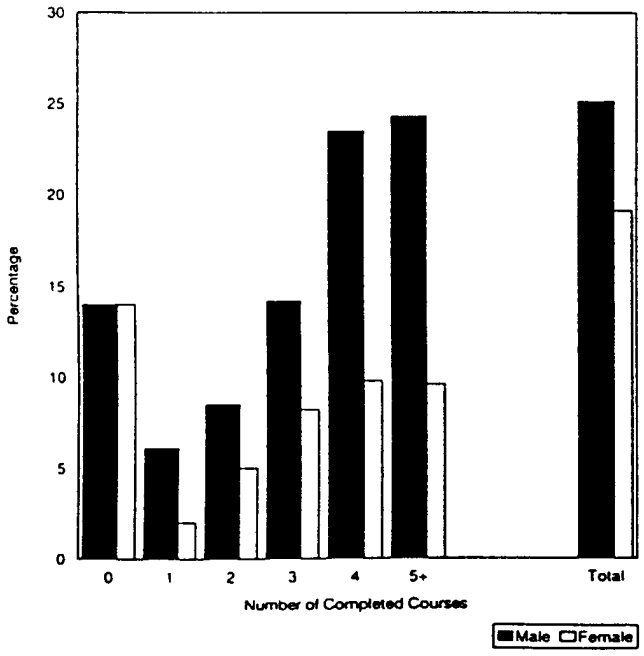
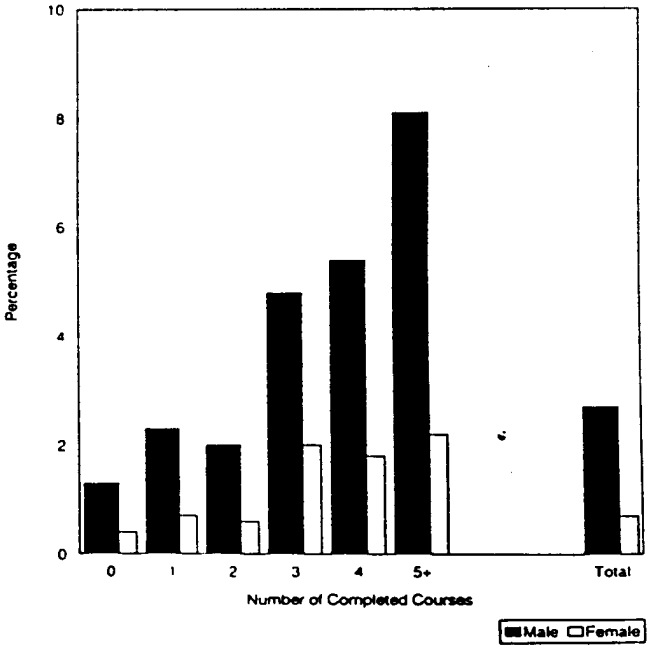



FIGURE 5.4d

Percentage earning more than £15 per hour

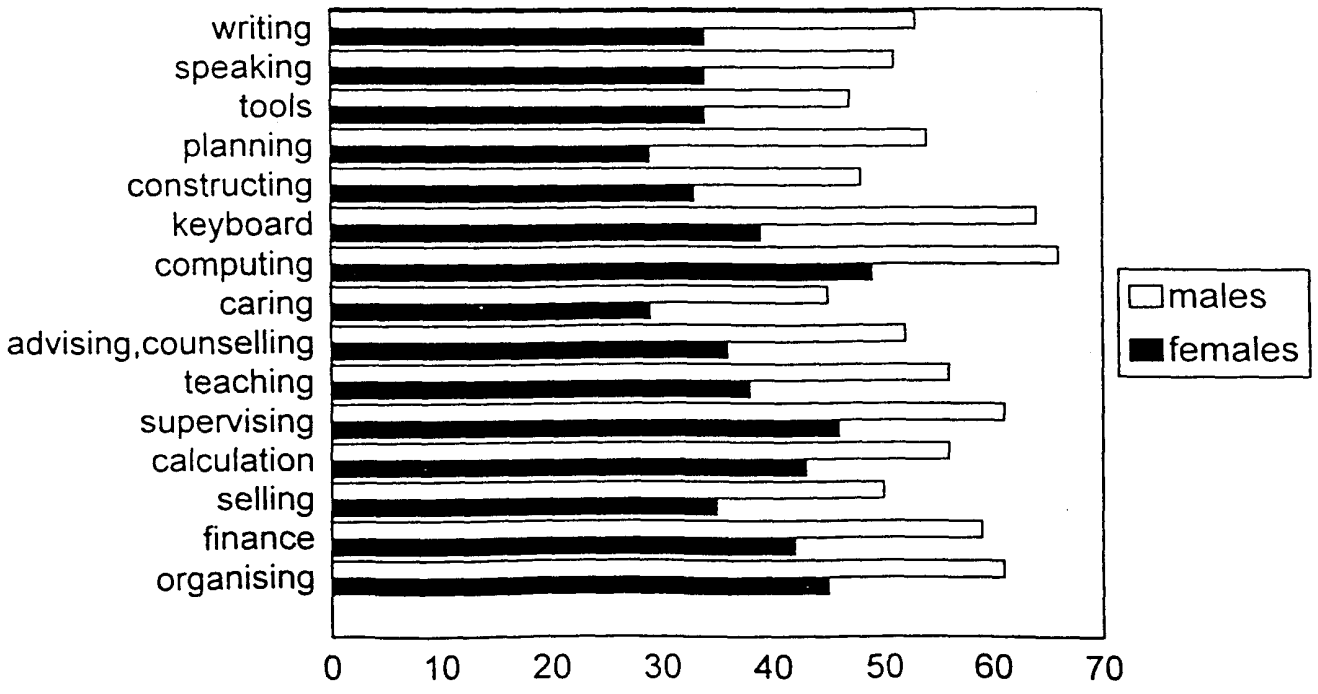
By Number of Training Courses



**(b) Promotion**

5.8 The kind of relationships established for income and skills extended to performance in the job itself as revealed by promotions. Cohort members were asked if they had been promoted in their current job. Exactly half the men had been promoted and one in three of the women (33%). Figure 5.5 shows the percentages of men and women, claiming to be good at each of the 15 skills, who had been promoted in their current job. Notably for both sexes, the skills most strongly associated with promotion were those which men claimed to be good at. Computing, supervising, organising, calculating and finance were all associated with promotion, and were the only skills associated with promotion among women. Notably, caring keyboard, teaching and advising skills were not associated with promotion; verbal skills were associated with promotion among men, but not among women.

Figure 5.5 PERCENT PROMOTED SAYING 'GOOD AT EACH SKILL'



5.9 These figures add another facet to the skills/income relationship drawing out clearly the advantage accruing to men through having the skills on which judgment of performance in a job is based. Again, it may be the case that the ground rules for promotion are in reality fixed to ensure that men gain the advantage rather than that the skills they have are at a premium in their jobs. However, women with these skills also did better in the promotion stakes than those without them; hence those who acquire these skills would appear to improve their chances of access to promotion and consequently higher income.

**(c) Psychological well-being**

5.10 Next we turn to the less tangible benefits of having skills: psychological well-being or its absence - depression. For this purpose we use the scores on the Malaise scale, which all cohort members in the survey completed, and relate these to the single overall measure of skills as described in the introduction. The Malaise measure actually provides pointers to *poor* psychological well-being. It is generally thought to assess this characteristic better in women than in men. High scores indicate *low* self-esteem and a *high degree* of depression. High scores on the overall skills scale indicate the presence of multiple skills and low scores their absence. The skills scores are grouped into four quartile ranges, in which the bottom quartile range contains the 25% of respondents with the fewest skills and the top quartile contains the 25% with the most skills.

5.11 Figure 5.6 charts the mean malaise scores across the four skills quartile ranges for men and women, and as a baseline also gives the overall means for the total samples of men and women. The scores reflect the commonly reported finding of higher levels of malaise, at least as measured by this scale, among women than among men. More central to our interest, the Malaise mean scores showed a progressive *decline* in both sexes as the skills level *increased.* The Malaise mean score for the second quartile range corresponded most closely to that of the total sample, suggesting that respondents in the lowest quartile range suffered above average levels of depression. Equally significant, those in the two highest quartile ranges had below average levels of depression, with women especially continuing to show reduced depression, ie improved self-esteem, as their skills level rose.

5.12 To what extent were these effects related to the education and training respondents had undertaken. Interestingly, as Figure 5.7 shows, the clearest relationship was for training courses. Those who had done *no* courses showed the *highest* levels of depression. In the case of training courses depression levels decreased with each extra course undertaken before levelling off at two courses. For courses leading to qualifications, no clear relationships with the number of courses undertaken were apparent; in fact women who had done more than five such courses showed exceptionally *high* levels of depression!

FIGURE 5.6

Skill Quartiles by Mean Malaise Score

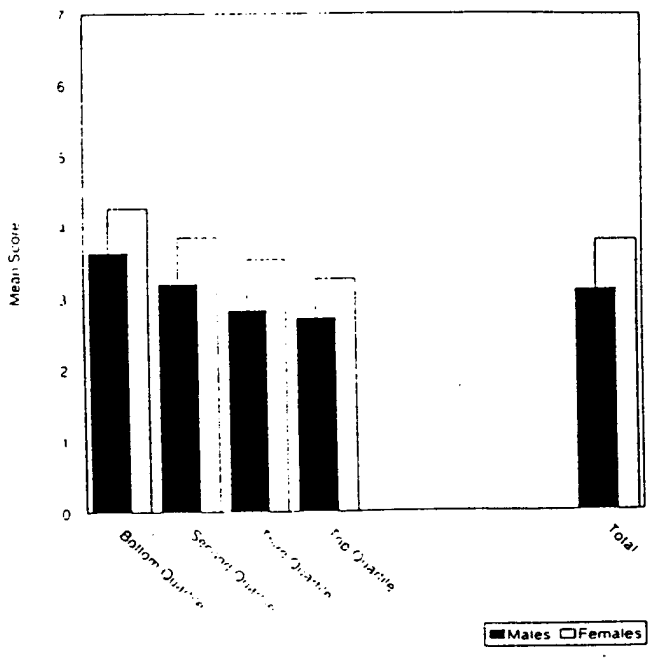
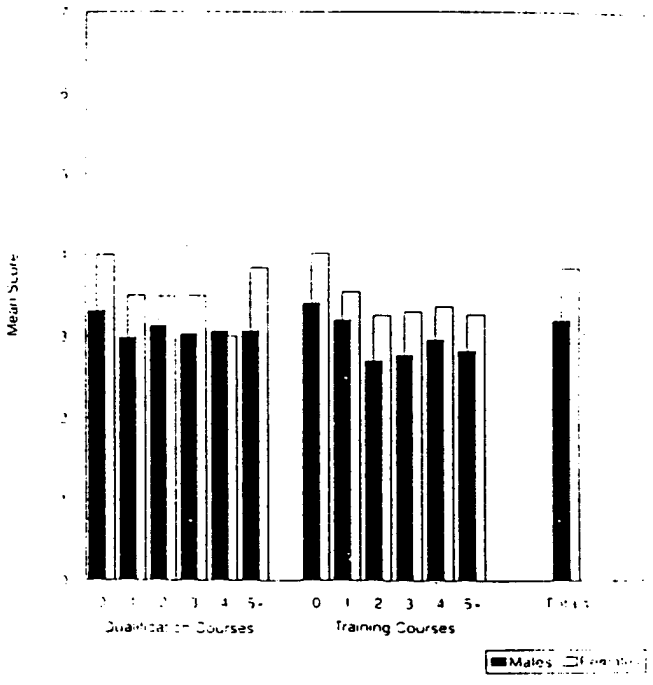



FIGURE 5.7

Mean Malaise Score by Number of Courses Taken



(1) Concomitants of psychological well-being

5.13 Is the development of depression counteracted by the possession of occupationally relevant skills and experience in the labour market, including participation in education and training over and above the qualification level people achieve and their current domestic and and occupational situation. In a series of exploratory analyses the Malaise scores were related to a combination of cohort members personal characteristics by the statistical technique of mutiple regression. This gives an overall measure of the strength of relationship between Malaise and combinations of the other characteristcs - as expressed through the multiple correlation coefficient, 'R'. More precisely, R squared gives the proportion of variance (variability) in the dependent variable, Malaise, which can be *'explained'* in terms of the the combination of other characteristics in the analysis. The results of the analysis also gives some indication of the *'relative importance'* of each of the other characteristics on the overall relationship - as expressed through the 'standardized regression coefficients ( beta coefficients). Table 5.2 shows the results of two such analyses for men and women separately. In the first analysis qualifications level is included and in the second it is excluded.

5.14 The results point to some interesting connections between skills and psychological states. The analysis shows modest multiple correlations - highest when qualification level is included and higher for women than for men. Thus for women in the analysis including qualification level, a multiple correlation of .27 was obtained, indicating that a small but highly significant proportion of the variability in Malaise is associated with skills and work and family situations. Notably the variables contributing most strongly to the relationship were for women, verbal skills, whether in a partnership and qualification level, and for men, construction skills, organising skills, qualification level and whether in a partnership. This last relationshisp is particularly interesting because in another analysis in which the partnership variable was excluded, having a child turned out to be particularly important for women. When partnership is included this differential effect largely dissappears, enabling us to speculate that it is the overall domestic situation , including the presence of a partner, which is important in relation to depression rather than than the presence of children per se.

**Table 5.2** Results of the multiple regression analysis: malaise regressed on five skills groups, whether has children,, social class, training courses undertaken and qualification level by gender

| | Standardized regression coefficients | | | |
|---|---|---|---|---|
| | Males | | Females | |
| Explanatory variables | A | B | A | B |
| Verbal skills* | -.05+ | -.05+ | -.08+ | -.11+ |
| Keyboard skills* | -.02 | -.04 | -.04+ | -.03+ |
| Construction skills* | -.06+ | -.07+ | -.04+ | -.05+ |
| Caring skills* | .05+ | .05+ | .06+ | .05+ |
| Organising skills* | -.08+ | -.09+ | -.03 | -.03. |
| Whether has children** | -.02 | -.01 | -.02 | -.03 |
| Whether has partner** | -.08+ | -.08+ | -.10+ | -.11+ |
| Social class*** | .03 | .06+ | .02 | .08+ |
| Number of training courses**** | -.02 | -.02 | -.01 | -.03 |
| Qualification level***** | -.09+ | -- | -.18+ | -- |
| Multiple R | .22 | .20 | .27 | .22 |
| N(samples size) | 3078 | 3078 | 3523 | 3523 |

**Note**

+ = statistically significant (p<.o5)
A= with qualification level; B = without qualification level
* Scores for skills group factors ( see Introduction)
** Presence of attribute scores 2; absence of attribute scores 1
*** Based on Registrar General's Standard Occupational Classification
**** Training courses since age 23
***** Academic and vocational qualifications combined ( see Appendix 2)

5.15 Other non-significant characteristics are also of interest. Thus participation in training appears less important than the skills acquired in certain areas and especially the overall qualification level reached. For women, the verbal skills appear to be particularly prominent and for men, construction and organisational skills. Again we can see pointers here to the skills which enable men and women with poor educational attainment to gain access to jobs. Without such skills, difficulties in finding work are compounded, as is the depression felt.

**(d) Unemployment**

5.15 The association between absence of skills and depression considered in the last section, is typically bound up with the most challenging threat to self-esteem in industrialised societies - unemployment. The NCDS data showed that this relationship was particularly strong among women. As Figure 5.8 shows, among women the mean Malaise score rose substantially after two spells of unemployment. For men the Malaise scores increased with one spell of unemployment and then fluctuated with further spells almost as if unemployment was becoming *less* of a problem for self-esteem. In fact for male respondents reporting 6 or more spells of unemployment, the mean Malaise score was little higher than for men with *no* experience of unemployment. This may be because in certain kinds of men's work, such as in the building trades, for example, periods without gainful employment are common and expected; this kind of experience is not available in women's work: lack of work, in the absence of child rearing as an alternative to it, is a continuing threat to self-esteem.

5.16 For both men and women experience of unemployment was strongly associated with the absence of skills. Figure 5.9 charts the mean numbers of spells of unemployment for respondents who had ever been unemployed across the four skill scores quartile ranges. As skills level decreased from the top to the bottom quartile range, experience of unemployment, doubled.

FIGURE 5.8

## Mean Malaise Score by Number of Times Unemployed

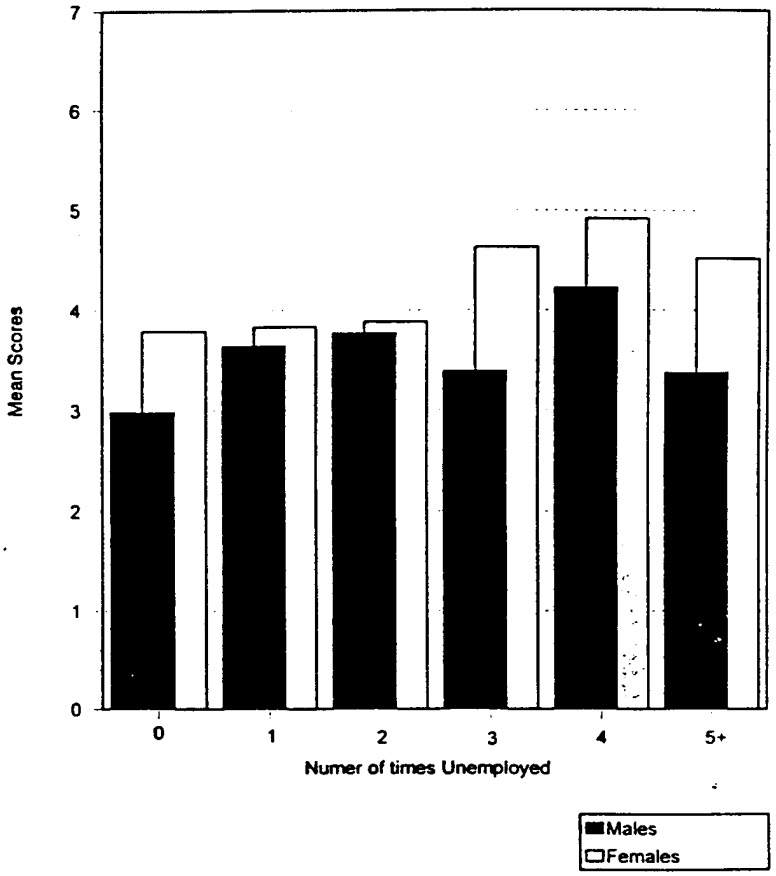
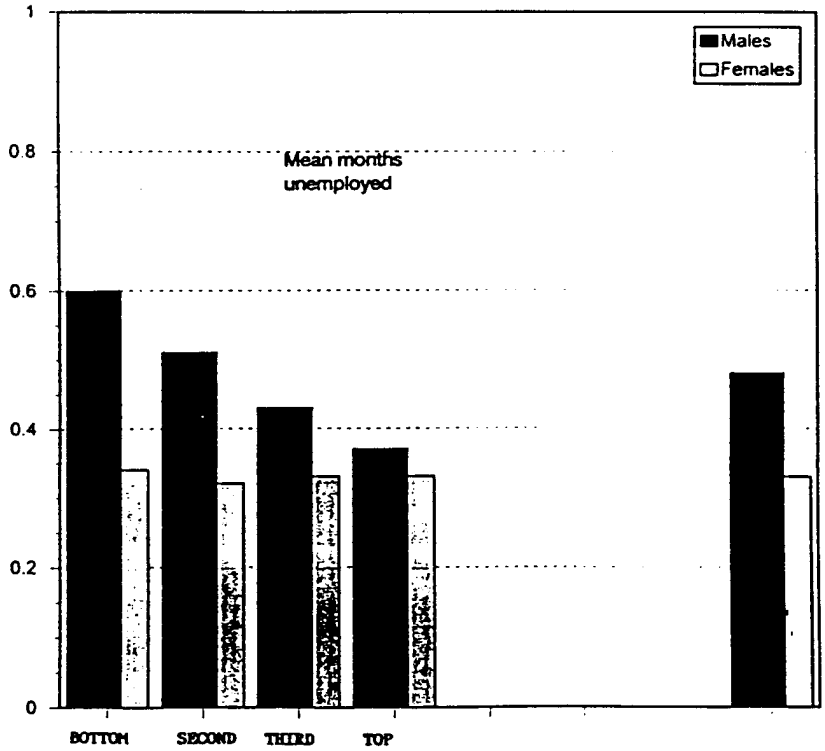



FIGURE 5.9

## MEAN MONTHS UNEMPLOYED BY SKILL QUARTILES



5.17 In section 4 we identified five skills where unemployed men and women appeared to be at a particular disadvantage compared with those in employment: reading plans, keyboard, computing, calculating and finance. Notably these skills deficiencies were also common among the relatively small groups of respondents who reported a problem with the 'basic skill' of mathematics. With the exception of keyboard skills they are typically male skills and are also associated with high incomes and promotions. Apart from computing, improvements in these skills were all relatively weakly related to participation in education and training; on the other hand they were all quite strongly related to highest qualifications achieved, especially among men.

5.18 To what extent do these relationships hold true among the unemployed themselves, at least those who were unemployed at the time they were interviewed. Figure 5.10 shows the percentages of unemployed respondents who claimed possession of each of the skills at different qualification levels. The differences are striking. Overall the unemployed showed low levels of skill at each qualification level. Those without qualifications were exceptionally deficient in the skills, especially keyboard and computing. For reading plans and calculating the the prevalence barely reached 20% for men at the lowest qualification levels and for keyboard, computing and finance, 10%. Among women at the lowest qualification levels the prevalence of all five skills was below 10%. Is family status associated with these deficits, in the key skill areas? Table 5.3 shows that hardly any unemployed women without partners and without children, had these skills; those with children, but without partners had them to the greatest extent. More men with children had the skills, but as the sample sizes show, hardly any men looking after children on their own were unemployed.The highest proportions of unemployed men claiming possession of the skills were among those who were in partnerships with children.

FIGURE 5.10

## % of Unemployed Self Rated as Good at Specific Skills

By Highest Qualification Level Achieved

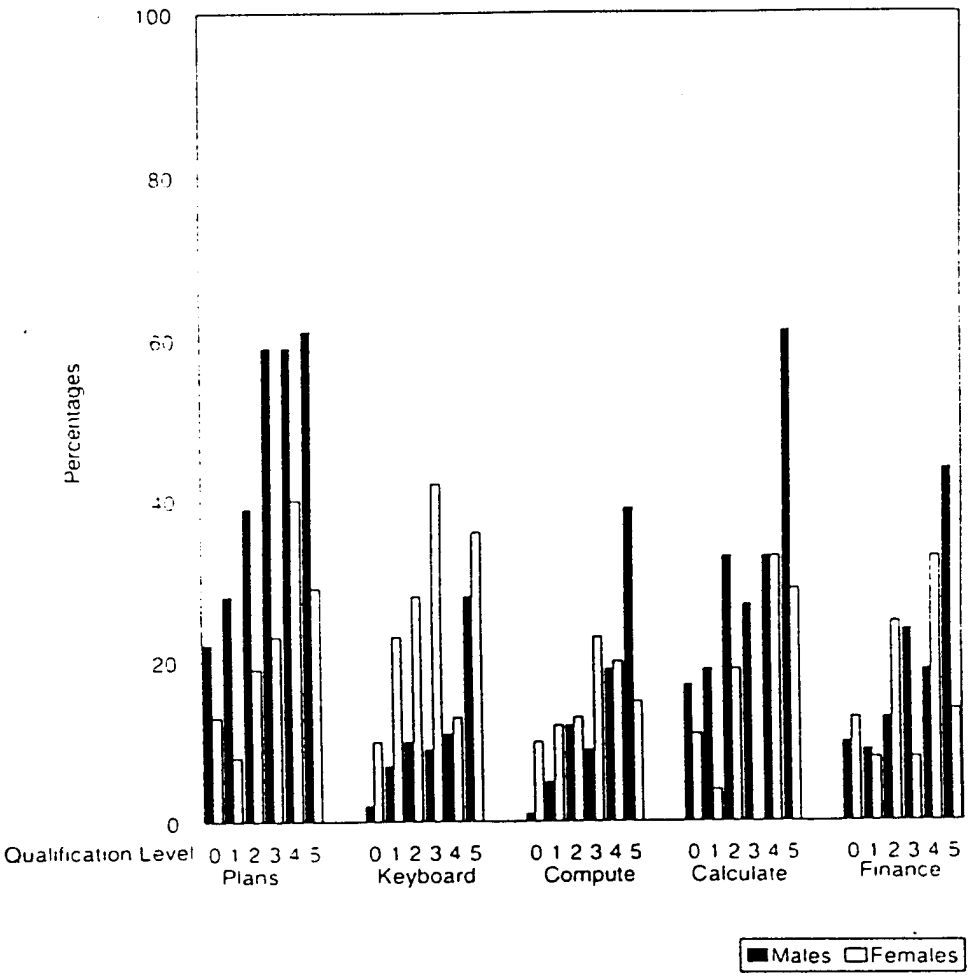



**Table 5.3** Percent Unemployed saying good at particular skills by family status

| Skills | MPC % | FPC % | MCNP % | FCNP % | MPNC % | FPNC % | MNPNC % | FNPNC % |
|---|---|---|---|---|---|---|---|---|
| Plans | 46 | 9 | 1 | 3 | 21 | 6 | 11 | 3 |
| Typing | 13 | 37 | 33 | 7 | 16 | 11 | 8 | 5 |
| Computing | 22 | 20 | 28 | 42 | 24 | 10 | 10 | 10 |
| Calculating | 37 | 13 | 4 | 43 | 26 | 30 | 10 | 3 |
| Finance | 32 | 20 | 31 | 50 | 18 | 10 | 10 | 3 |
| n (100%) | 161 | 89 | 13 | 22 | 82 | 30 | 48 | 16 |

5.19 These figures take us a step further towards understanding the role of work-related skills in unemployment. Poor educational attainment effectively restricts access to the routes to modern employment, not only because lack of qualifications is a bar to entry to large numbers of them, but because the lack of key skills for modern jobs is at the heart of unemployability. Individuals who lack these skills, therefore, are effectively excluded from large areas of the labour market. Launched from the time of leaving school, onto a downward spiral of reduced opportunities, they find themselves increasingly relegated to the margins of the labour market, where only a limited number of unskilled jobs is available to them. As the labour market contracts they are probably the first to be squeezed out of it; as it expands they are the last to get the new jobs.

5.20 Clearly any programmes to improve the job prospects of these respondents, needs to tackle centrally these areas of poor or non-existent skill. Equally important, their origins in poor educational attainment underlines their importance in the modern school curriculum .

## 6 Conclusions

6.1 The more detailed analysis of NCDS occupational skills data presented here provides valuable insights into the acquisition of skills and what motivates both their use in work and their improvement. The gender divide noted in *Life at 33* was one of skills specialisation, reflecting the different kinds of work that men and women do. We now see that with respect to skills utilisation at work and skills improvement the relationship tends to be one way. Women may have skills, but either their domestic situation keeps them out of the labour market, or they enter jobs where the skills they have tend not to be used to the same extent as men's. The consequence is a tendency to fall behind not only in applying their skills at work, but in the means by which their skills might be improved, especially through education and training.

6.2 Men's work, more than women's tends to be associated with the jobs they do and they gain the chance to improve their skills through their more active involvement in education and especially work-based training. 37% of men and 30% of women had done one or more courses leading to qualifications since the age of 23. For work-related training, however, twice the number of men had participated: 44% of men and 24% of women. This points to a higher level of investment in training for men's work as opposed to women's. Yet ironically women appear to gain more from both academic and work-related training courses in terms of perceived skills improvement; their psychological well-being is also more closely linked to their participation in education and training. Much of the difference can be identified with the occupations entered. When women enter the traditional higher level male preserves of management/administration, or are engaged in the professions or associated occupations, they show the same kinds of skills improvement during adult life. It for those women in the traditionally female occupations of clerical work, personal services and sales where the disadvantages are greatest and where men engaged in them consistently do better.

6.3 Another notable finding relates to the relationship between self-reported skills and formal qualifications. Vocational qualifications are premised on the idea that they carry information of direct value to employers more effectively than academic qualifications; vocational qualifications reflect the range of work-related skills that people possess. The

evidence points in the opposite direction. If anything it is the academic qualifications which reflect the larger number of work-related skills.

6.4 The development of NVQs, which post-dated the formative education and training period of NCDS cohort members' lives, may well change the situation, but only if more people with the kinds of personal attributes that employers want chose to take them. It tends to be assumed that employers' attraction in the past to academic qualifications for recruiting people to jobs simply reflected the status attached to them because of their highly selective nature. The evidence here suggests that, as well as their obvious relationship to cognitive types of skills like writing and calculation, qualifications also reflect a much wider range of the kind of skills considered important in modern employment.

6.5 Qualifications facilitate access to particular kinds of occupations. The education and training that follows them is associated with the highest incomes and promotions, from which again, men appear to be the main beneficiaries. Skills may be seen as one of the means of mediating these education and training gains. They represent both a product and a cause of occupational achievement - a particular form of personal capital, which is not only associated with material benefits as reflected in income, but with psychological well-being as well.

6.6 Clearly from the limited data we have at our disposal here we cannot say with certainty whether the skills people said they had acquired were a product of the education and training they had received or the work that educational achievement enabled them to enter. What probably happens is that a continuous process of skills acquisition occurs dynamically related to education, training and work experience and reinforced by the enhanced motivation associated with psychological well-being. Qualifications tap only part of what is being gained. What seems important is the need to recognise the value of stimulating the process of skills acquisition throughout young adulthood through both the education system and the work place. The fact that over two thirds of 33 year olds had not done any courses leading to qualifications since the age of 23 and over half had not done any work-related training must be a cause for concern. If the full potential of the under-utilised skills pool, especially among women, is to be tapped, then one way to do it is through stimulating an interest in post compulsory education. At a time when many women are involved full-time in child care, there is great scope for increasing educational

participation through Access courses and other adult education routes, as well as occupationally specific training.

6.7 A particularly important target here is those adults reporting difficulties with the basic skills of numeracy and literacy. These depress not only the more academic kind of skill, but a whole range of other occupationally related skills, and especially those such as reading plans, keyboard, computing, calculating and finance, central to employability in the modern labour market. This underlines the value of remedial programmes to raise basic skills levels. Only for using tools by men was a basic skills difficulty apparently not a problem. But this almost certainly means that the craft work that these men did was the only occupational route open to them. It is doubtful whether this kind of work in Britain will be escaping the pressure for more qualified entrants much longer. In continental terms it is seen as no different from any other kind of occupation in this respect (Bynner and Roberts, 1991).

6.8 Finally, it was one of the aims of the analysis to test whether knowledge of cohort members' self-reported skills added anything to what was known about them from formal qualifications. The data presented here give ample evidence of the value of this more subjectively based information. A personal skills profile offers for adults a useful opportunity to update in a directly employment-relevant sense, the information conveyed by qualifications.

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# APPENDIX 1

# WORK-RELATED SKILLS INVENTORY

# Section E - Your Skills

096

People have a variety of skills. Some they use at work, others they use elsewhere. Some they are good at, others they are less good at. Some abilities and skills they have improved with practice, others they have not.

How good are you at the skills listed below?
Please answer questions a), b) and c) for each skill.

a) *Would you say that your own ability is good, fair or poor or non-existent?*
***Please circle one number in Column A below for each skill***

b) *Where do you make use of this skill? At work only, both at work and elsewhere, elsewhere but not at work, or not at all?*
***Please circle one number in Column B below for each skill***

c) *Over the last 10 years (since March 1981) would you say your skill has got better, not changed, or got worse?*
***Please circle one number in Column C below for each skill***

| | COLUMN A How good are you?: | | | | COLUMN B Where is skill used?: | | | | | COLUMN C Change in last 10 years?: | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Good | Fair | Poor | Don't have skill | Used at work | Used elsewhere | Used at both | Not used | Don't have skill | Got better | No change | Got worse | Don't have skill | |
| 1 Writing clearly | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 18-20 |
| 2 Speaking clearly | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 21-23 |
| 3 Using tools properly | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 24-26 |
| 4 Reading plans or diagrams | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 27-29 |
| 5 Constructing, assembling or building things well | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 30-32 |
| 6 Typing or using a computer keyboard | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 33-35 |
| 7 Using a computer to solve problems or give information | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 36-38 |
| 8 Looking after people who need care | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 39-41 |

***Please Turn Over***

How good are you at the skills listed below?
Please answer questions a), b) and c) for each skill.

a) *Would you say that your own ability is good, fair or poor or non-existent?*
***Please circle one number in Column A below for each skill***

b) *Where do you make use of this skill? At work only, both at work and elsewhere, elsewhere but not at work, or not at all?*
***Please circle one number in Column B below for each skill***

c) *Over the last 10 years (since March 1981) would you say your skill has got better, not changed, or got worse?*
***Please circle one number in Column C below for each skill***

| | COLUMN A How good are you?: | | | | COLUMN B Where is skill used?: | | | | | COLUMN C Change in last 10 years?: | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Good | Fair | Poor | Don't have skill | Used at work | Used elsewhere | Used at both | Not used | Don't have skill | Got better | No change | Got worse | Don't have skill | |
| 9 Giving advice and support to people | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 42-44 |
| 10 Teaching or instructing children or adults | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 45-47 |
| 11 Supervising other people's work or activities | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 48-50 |
| 12 Carrying out mathematical calculations | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 51-53 |
| 13 Selling products or services | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 54-56 |
| 14 Understanding finance and accounts | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 57-59 |
| 15 Running an organisation, group or firm | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 60-62 |

# APPENDIX 2

## ACADEMIC AND VOCATIONAL QUALIFICATIONS

B22a) SHOW CARD BC. So far I have asked you about courses you have done since March 1981. Now, could you help us check our records are complete by showing me on this card all the qualifications you have obtained in your life (including any you have just told me about). CODE ALL THAT APPLY AT (a). IF NONE AT (a), RING CODE 37 AND GO TO B23a)

IF ONE OR MORE QUALIFICATIONS AT a)

B22b) SHOW CARD BC Did you obtain this *(any of these)* before March 1981? *(Which ones?)*

CODE ALL THAT APPLY AT (b). IF NONE AT (b), RING CODE 37 AND GO TO B23a)

Card 015

| | | (a) EVER | (b) BEFORE 1981 |
|---|---|---|---|
| | | 41-70 | 13-42 |
| | NONE | 37 | 37 |
| CSE, GCE, 'O' AND 'A' LEVEL, GCSE, SCOTTISH 'O', 'H', AND STANDARD GRADES | CSE - grade 2-5 | 01 | 01 |
| | CSE - grade 1 | 02 | 02 |
| | GCE 'O' Level - passes or grades A-C | 03 | 03 |
| | General Certificate of Secondary Education (GCSE) grades A-C | 04 | _ |
| | GCE 'A' Level | 05 | 05 |
| | Scottish 'O' Grade - passes or grades A-C | 06 | 06 |
| | Scottish Standard Grade - grades 1-3 | 07 | _ |
| | Scottish Higher Grade | 08 | 08 |
| | Scottish Certificate of Sixth Year Studies | 09 | 09 |
| ROYAL SOCIETY OF ARTS (RSA) AWARDS | RSA - Stage 1 | 10 | 10 |
| | RSA - Stage 2 | 11 | 11 |
| | RSA - Stage 3 | 12 | 12 |
| CITY AND GUILDS AND REGIONAL EXAMINING BOARD CERTIFICATES | Operative | 13 | 13 |
| | Craft/Intermediate/Ordinary/Part I | 14 | 14 |
| | Advanced/Final/Part II or III | 15 | 15 |
| | Full Technological (FTC) | 16 | 16 |
| | Other City and Guilds (SPECIFY)_____ | 17 | 17 |
| | City and Guilds - can't say which | 18 | 18 |
| | Insignia Award in Technology (CGIA) | 19 | 19 |
| JOINT INDUSTRY BOARD (JIB), NATIONAL JOINT COUNCIL (JNC) and OTHER AWARDS | JIB/NJC or other Craft/Technician certificate | 20 | 20 |
| NATIONAL DIPLOMAS AND CERTIFICATES | ONC/OND (OR SNC/SND) | 21 | 21 |
| | HNC/HND (or SHNC/SHND) | 22 | 22 |

CONTINUED OVER THE PAGE ...

014/(

| | Card 014 (a) EVER | Card 015 (b) BEFORE 1981 |
|---|---|---|
| **TEC/BEC/BTEC/SCOTEC/SCOTBEC/SCOTVEC AWARDS** | | |
| TEC/BEC/BTEC (or SCOTEC/SCOTBEC/SCOTVEC) National/General Certificate or Diploma | 41-70 23 | 13-42 23 |
| TEC/BEC/BTEC (or SCOTEC/SCOTBEC/SCOTVEC) Higher or Higher National Certificate or Diploma | 24 | 24 |
| **OTHER TECHNICAL OR BUSINESS QUALIFICATIONS** | | |
| Other technical or business qualifications - including HGV, PSV etc | 25 | 25 |
| **PROFESSIONAL QUALIFICATIONS including NURSING** | | |
| Full professional qualification - membership awarded by professional institution | 26 | 26 |
| Part of a professional qualifications eg. Part I of a two part course | 27 | 27 |
| Nursing qualifications - including Nursery Nursing (NNEB) | 28 | 28 |
| **UNIVERSITY, POLYTECHNIC AND CNAA AWARDS** | | |
| Polytechnic (or Central Institution) Diploma or Certificate (NOT CNAA VALIDATED) | 29 | 29 |
| University or CNAA Diploma or Certificate - including Dip. HE and Teacher Training College Certificate | 30 | 30 |
| University or CNAA First Degree - including B.Ed | 31 | 31 |
| University or CNAA Post Graduate Diploma | 32 | 32 |
| University or CNAA Higher Degree - Msc, PhD, etc | 33 | 33 |
| **ANY OTHER QUALIFICATIONS** | | |
| Any other qualification 1._____ | 34 | 34 |
| (WRITE IN NAME OF QUALIFICATION 2._____ | 35 | 35 |
| AND WHO ISSUES CERTIFICATE) 3._____ | 36 | 36 |

B22c) Are any of the qualifications you have obtained National Vocational Qualifications sometimes called NVQs?

| | |
|---|---|
| Yes | 43 1 ASK B22d) |
| No | 2 GO TO B23a) |
| Can't say | 8 |

B22d) SHOW CARD BC Which of these were National Vocational Qualifications?
WRITE IN CODE NUMBERS FROM CARD

Can't say = 98

44-49

Qual. 1: [ ][ ]

Qual. 2: [ ][ ]

Qual. 3: [ ][ ]

## VOCATIONAL QUALIFICATIONS

As in Life at 33 - page 44

| Level | Details |
|---|---|
| NVQl | RSAI |
| | Other technical /business qualifications |
| NVQ2 | City and Guilds operative |
| | City and Guilds Part 1 |
| | Other City and Guilds |
| | Some City and Guilds |
| | CGIA |
| | JIB/NJC etc |
| | RSA 2 |
| | RSA 3 |
| NVQ3 | C and G advanced |
| | OND etc |
| | TEC etc national/general |
| NVQ4 | Full technological certificate |
| | HND |
| | BTEC higher etc |
| | Professional qualifications |
| | Part professional qualifications |
| | Nursing |

# APPENDIX 3

# ADDITIONAL TABLES

**Table A1** Percentage saying 'good at skill' by highest academic qualification

| | Males | | | | | | | Females | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | 0 | 1 | 2 | 3 | 4 | 5 | | 0 | 1 | 2 | 3 | 4 | 5 |
| | % | % | % | % | % | % | | % | % | % | % | % | % |
| Writing | 19 | 24 | 37 | 40 | 44 | 64 | | 39 | 48 | 63 | 68 | 66 | 78 |
| Speaking | 40 | 40 | 43 | 47 | 52 | 63 | | 46 | 49 | 59 | 65 | 66 | 72 |
| Using tools | 60 | 55 | 61 | 64 | 57 | 36 | | 26 | 26 | 30 | 30 | 30 | 28 |
| Making plans | 28 | 36 | 52 | 62 | 66 | 63 | | 9 | 13 | 20 | 28 | 32 | 4 |
| Constructing things | 46 | 40 | 51 | 55 | 53 | 53 | | 12 | 12 | 14 | 17 | 16 | 17 |
| Keyboard | 4 | 5 | 12 | 15 | 19 | 27 | | 9 | 24 | 39 | 38 | 18 | 25 |
| Computing | 5 | 7 | 13 | 20 | 32 | 43 | | 6 | 13 | 20 | 25 | 14 | 22 |
| Caring | 23 | 16 | 16 | 15 | 17 | 19 | | 59 | 52 | 50 | 44 | 74 | 49 |
| Advising, Counselling | 27 | 33 | 38 | 40 | 47 | 51 | | 39 | 44 | 49 | 58 | 68 | 63 |
| Teaching | 20 | 23 | 29 | 34 | 38 | 44 | | 25 | 30 | 38 | 47 | 62 | 68 |
| Supervising | 33 | 33 | 46 | 46 | 53 | 48 | | 24 | 22 | 34 | 42 | 58 | 50 |
| Calculating | 19 | 20 | 30 | 36 | 48 | 55 | | 10 | 9 | 19 | 22 | 21 | 31 |
| Selling | 16 | 21 | 23 | 24 | 26 | 22 | | 20 | 20 | 23 | 19 | 14 | 13 |
| Finance | 12 | 16 | 22 | 25 | 37 | 34 | | 13 | 16 | 25 | 29 | 23 | 22 |
| Organising | 19 | 22 | 29 | 30 | 40 | 48 | | 11 | 13 | 19 | 23 | 30 | 31 |
| n (100%) | 917 | 1006 | 1874 | 5181 | 72 | 738 | | 807 | 870 | 2331 | 618 | 130 | 612 |

**NOTE :**

**Highest Academic Qualifications**

**0 = None**
1 = CSE grade 2-5
2 = O level/equivalent
3 = A level/equivalent
4 = Higher quals.
5 = Degree +

**Table A2.** Percentage saying 'good at skill' by Highest Vocational Qualification by sex

| | Males | | | | | | Females | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| | % | % | % | % | % | | % | % | % | % | % |
| Writing | 38 | 34 | 32 | 36 | 48 | | 58 | 61 | 63 | 59 | 68 |
| Speaking | 48 | 46 | 41 | 44 | 56 | | 57 | 56 | 62 | 64 | 66 |
| Using tools | 48 | 51 | 73 | 75 | 52 | | 27 | 26 | 34 | 31 | 34 |
| Making plans | 42 | 49 | 59 | 67 | 66 | | 20 | 22 | 24 | 25 | 33 |
| Constructing things | 39 | 41 | 61 | 64 | 48 | | 13 | 13 | 16 | 19 | 15 |
| Keyboard | 14 | 12 | 9 | 11 | 20 | | 19 | 49 | 59 | 33 | 18 |
| Computing | 18 | 12 | 10 | 17 | 35 | | 13 | 29 | 25 | 20 | 16 |
| Caring | 19 | 17 | 15 | 15 | 18 | | 53 | 46 | 48 | 45 | 71 |
| Advising , counselling | 39 | 33 | 36 | 38 | 49 | | 48 | 49 | 49 | 59 | 68 |
| Teaching | 29 | 31 | 28 | 33 | 40 | | 39 | 41 | 42 | 46 | 59 |
| Supervising | 40 | 40 | 45 | 47 | 53 | | 32 | 30 | 40 | 42 | 56 |
| Calculating | 31 | 30 | 28 | 35 | 53 | | 17 | 22 | 18 | 21 | 23 |
| Selling | 23 | 25 | 18 | 22 | 24 | | 20 | 20 | 20 | 21 | 14 |
| Finance | 22 | 24 | 17 | 22 | 39 | | 20 | 30 | 22 | 27 | 24 |
| Organising | 28 | 30 | 26 | 27 | 41 | | 18 | 22 | 22 | 22 | 30 |
| n (100%) | 2343 | 225 | 858 | 685 | 972 | | 2994 | 366 | 856 | 202 | 802 |

**NOTE:**

Highest Vocational Qualifications

0 = None
1 = NVQ1
2. = NVQ2
3 = NVQ3
4 = NVQ4

**Table A3.** Percentage saying 'good at skill' by occupational status

| Skills | Males | | | | Females | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | FT Emp | FT SE | Un-emp. | | FT Emp | PT Emp | FT SE | Un-emp | Hom e-care |
| | % | % | % | | % | % | % | % | % |
| Writing | 40 | 32 | 35 | | 65 | 57 | 60 | 60 | 59 |
| Speaking | 48 | 44 | 51 | | 63 | 56 | 65 | 57 | 57 |
| Using tools | 54 | 71 | 58 | | 31 | 29 | 37 | 32 | 26 |
| Making plans | 52 | 63 | 39 | | 29 | 17 | 28 | 19 | 19 |
| Constructing things | 45 | 63 | 48 | | 15 | 13 | 16 | 13 | 14 |
| Keyboard | 16 | 8 | 9 | | 37 | 26 | 23 | 22 | 22 |
| Computing | 23 | 10 | 9 | | 28 | 14 | 13 | 17 | 7 |
| Caring | 17 | 16 | 21 | | 45 | 56 | 46 | 54 | 63 |
| Advising , counselling | 41 | 38 | 38 | | 59 | 47 | 58 | 50 | 46 |
| Teaching | 33 | 30 | 27 | | 48 | 37 | 48 | 28 | 43 |
| Supervising | 45 | 49 | 38 | | 52 | 32 | 53 | 34 | 23 |
| Calculating | 37 | 34 | 27 | | 25 | 16 | 20 | 11 | 13 |
| Selling | 20 | 35 | 21 | | 21 | 19 | 42 | 21 | 13 |
| Finance | 24 | 30 | 15 | | 26 | 21 | 30 | 17 | 18 |
| Organising | 29 | 43 | 21 | | 27 | 15 | 48 | 22 | 14 |
| n (100%) | 3872 | 801 | 296 | | 1808 | 1594 | 188 | 114 | 1473 |

**NOTE:**

FT Emp = Full-time employment
FT SE = Full-time self employment
Unemp = Unemployment
Homecare = Out of the labour market looking after home.

**Table A4** Percentage saying 'good at skills' but not using it at work by sex

| Skills | Males % | Females % |
|---|---|---|
| Writing | 8 (1972) | 26 (3743) |
| Speaking | 6 (2396) | 17 (3144) |
| Using tools | 18 (2869) | 27 (1517) |
| Making plans | 12 (2698) | 35 (1215) |
| Constructing things | 29 (2435) | 51 (755) |
| Keyboard | 8 (715) | 24 (1507) |
| Computing | 6 (1016) | 11 (915) |
| Caring | 56 (5068) | 53 (5310) |
| Advising , Counselling | 11 (2016) | 28 (2761) |
| Teaching | 14 (1617) | 15 (2792) |
| Supervising | 5 (2251) | 16 (1976) |
| Calculating | 9 (1783) | 22 (986) |
| Selling | 11 (1128) | 23 (1013) |
| Finance | 16 (1240) | 30 (1184) |
| Organising | 12 (1522) | 27 (1096) |

**NOTE:**
Numbers in brackets are the bases (n) for percentages.

**Table A5.** Percentage claiming to be good at a skill, not using it at work, by highest academic qualification

| | Males | | | | | | Females | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| | % | % | % | % | % | % | % | % | % | % | % | % |
| Writing | 16 | 18 | 9 | 3 | 0 | 2 | 44 | 39 | 27 | 17 | 9 | 9 |
| Speaking | 15 | 7 | 4 | 4 | 0 | 2 | 28 | 23 | 18 | 11 | 6 | 6 |
| Using tools | 14 | 14 | 16 | 32 | 17 | 37 | 36 | 26 | 28 | 17 | 20 | 24 |
| Making plans | 11 | 10 | 11 | 15 | 17 | 15 | 41 | 43 | 39 | 38 | 26 | 20 |
| Constructing things | 23 | 21 | 27 | 47 | 36 | 48 | 52 | 58 | 54 | 49 | 38 | 38 |
| Keyboard | 16 | 15 | 9 | 7 | 0 | 3 | 37 | 30 | 24 | 18 | 16 | 11 |
| Computing | 19 | 16 | 6 | 6 | 0 | 2 | 13 | 17 | 10 | 12 | 10 | 10 |
| Caring | 57 | 58 | 49 | 44 | 29 | 37 | 55 | 56 | 48 | 40 | 29 | 27 |
| Advising, Counselling | 19 | 15 | 11 | 11 | 7 | 5 | 41 | 38 | 29 | 18 | 13 | 13 |
| Teaching | 22 | 21 | 15 | 9 | 13 | 7 | 44 | 40 | 32 | 26 | 15 | 10 |
| Supervising | 7 | 8 | 5 | 3 | 0 | 3 | 22 | 21 | 18 | 12 | 7 | 9 |
| Calculating | 15 | 12 | 8 | 5 | 8 | 10 | 31 | 26 | 23 | 20 | 3 | 18 |
| Selling | 14 | 11 | 9 | 6 | 9 | 8 | 25 | 24 | 22 | 14 | 21 | 34 |
| Finance | 25 | 26 | 16 | 7 | 17 | 12 | 43 | 33 | 29 | 23 | 10 | 30 |
| Organising | 21 | 17 | 12 | 9 | 9 | 8 | 32 | 28 | 31 | 22 | 18 | 19 |

**NOTE:**

Highest Academic Qualification

0 = None
1 = CSE grade 2-5
2 = O level/equivalent
3 = A level/equivalent
4 = Higher quals.
5 = Degree +

**Table A6.** Percentage claiming to be good at a skill, not using it at work by highest vocational qualifications

| | Males | | | | | | Females | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| | % | % | % | % | % | | % | % | % | % | % |
| Writing | 11 | 8 | 13 | 7 | 2 | | 30 | 25 | 27 | 22 | 12 |
| Speaking | 7 | 5 | 8 | 3 | 2 | | 19 | 17 | 18 | 19 | 9 |
| Using tools | 22 | 23 | 11 | 10 | 24 | | 32 | 34 | 23 | 31 | 12 |
| Making plans | 16 | 19 | 10 | 6 | 11 | | 36 | 33 | 47 | 31 | 25 |
| Constructing things | 35 | 38 | 22 | 16 | 36 | | 51 | 59 | 61 | 40 | 41 |
| Keyboard | 8 | .8 | 11 | 10 | 5 | | 23 | 24 | 26 | 26 | 19 |
| Computing | 7 | 0 | 12 | 11 | 2 | | 11 | 11 | 14 | 12 | 10 |
| Caring | 56 | 50 | 51 | 59 | 54 | | 56 | 59 | 60 | 58 | 33 |
| Advising , counselling | 14 | 7 | 14 | 10 | 6 | | 30 | 34 | 34 | 27 | 13 |
| Teaching | 16 | 24 | 21 | 14 | 8 | | 33 | 34 | 35 | 33 | 15 |
| Supervising | 6 | 8 | 6 | 5 | 3 | | 18 | 19 | 22 | 13 | 8 |
| Calculating | 12 | 6 | 12 | 9 | 5 | | 23 | 23 | 26 | 16 | 17 |
| Selling | 12 | 11 | 12 | 9 | 7 | | 24 | 15 | 21 | 21 | 23 |
| Finance | 16 | 23 | 21 | 24 | 7 | | 32 | 26 | 27 | 20 | 26 |
| Organising | 14 | 15 | 19 | 8 | 9 | | 30 | 27 | 33 | 13 | 19 |

**NOTE:**

Highest Vocational Qualifications

0 = None
1 = NVQ1
2. = NVQ2
3 = NVQ3
4 = NVQ4

**Table A7.** Qualifications by 9 major standard occupational groups

**a. Vocational**

Males

| | Mgr | Prof | Asst Prof | Cle/ Sec | Craft | Serv- ice | Sales | Ops, | Other |
|---|---|---|---|---|---|---|---|---|---|
| NVQ | % | % | % | % | % | % | % | % | % |
| 0 | 58 | 45 | 44 | 59 | 37 | 48 | 57 | 56 | 76 |
| 1 | 4 | 2 | 2 | 4 | 2 | 7 | 4 | 12 | 4 |
| 2 | 11 | 4 | 10 | 8 | 32 | 23 | 12 | 19 | 12 |
| 3 | 13 | 7 | 12 | 12 | 22 | 12 | 13 | 9 | 5 |
| 4 | 27 | 48 | 32 | 17 | 8 | 10 | 14 | 6 | 31 |
| n % | 1096 | 511 | 515 | 290 | 1355 | 324 | 219 | 660 | 347 |

Females

| | Mgr | Prof | Asst Prof | Cle/ sec | Craft | Serv- ice | Sales | Ops | Other |
|---|---|---|---|---|---|---|---|---|---|
| NVQ | % | % | % | % | % | % | % | % | % |
| 0 | 55 | 58 | 28 | 49 | 76 | 64 | 72 | 83 | 80 |
| 1 | 8 | 5 | 3 | 12 | 6 | 5 | 7 | 5 | 5 |
| 2 | 17 | 6 | 8 | 28 | 11 | 16 | 14 | 7 | 11 |
| 3 | 5 | 2 | 4 | 5 | 4 | 4 | 2 | 1 | 3 |
| 4 | 15 | 29 | 56 | 6 | 3 | 11 | 5 | 4 | 2 |
| n % | 1569 | 456 | 652 | 1424 | 151 | 845 | 509 | 267 | 420 |

**b. Academic**

Males

| | Mgr | Prof | Asst Prof | Cle/ Sec | Craft | Serv- ice | Sales | Ops | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| 0 | 9 | 3 | 6 | 12 | 224 | 16 | 16 | 36 | 48 |
| 1 | 13 | 3 | 7 | 13 | 29 | 17 | 22 | 33 | 25 |
| 2 | 39 | 17 | 36 | 46 | 42 | 52 | 43 | 29 | 22 |
| 3 | 18 | 12 | 19 | 18 | 3 | 11 | 8 | 1 | 4 |
| 4 | 2 | 5 | 4 | 1 | 0 | 0 | 3 | 0 | 0 |
| 5 | 20 | 59 | 25 | 8 | 1 | 4 | 9 | 1 | 1 |
| n % | 1096 | 511 | 515 | 290 | 1355 | 324 | 219 | 660 | 347 |

Females

| | Mgr | Prof | Asst Prof | Cle/ sec | Craft | Serv- ice | Sales | Ops | Other NVQ |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| 0 | 10 | 2 | 4 | 8 | 33 | 23 | 22 | 44 | 40 |
| 1 | 11 | 2 | 5 | 17 | 24 | 22 | 23 | 26 | 24 |
| 2 | 44 | 9 | 45 | 57 | 33 | 47 | 44 | 27 | 33 |
| 3 | 18 | 7 | 25 | 14 | 8 | 6 | 7 | 3 | 3 |
| 4 | 2 | 14 | 4 | 1 | 1 | 1 | 0 | 0 | 1 |
| 5 | 14 | 66 | 19 | 4 | 2 | 21 | 3 | 0 | 1 |
| n % | 569 | 456 | 652 | 1424 | 157 | 845 | 509 | 267 | 420 |

**NOTE:**

**a. Vocational**

0 = none
1 = NVQ1
2 = NVQ2
3 = NVQ3
4 = NVQ4

**b. Academic**

0 = none
1 = CSE grades 2-5
2 = 'O' level/equivalent
3 = 'A' level/equivalent
4 = Higher qualification
5 = Degree +

**Table A.8.** Percentages saying 'good at skill' and using them at work by Major Occupational Groups

Males

| skills | Man.. | Prof. | AssProf | Cle/Sec | Craft | Service | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| write | 99 | 99 | 97 | 96 | 82 | 90 | 91 | 81 | 63 |
| speak | 88 | 93 | 91 | 82 | 76 | 85 | 83 | 70 | 82 |
| tools | 76 | 81 | 84 | 68 | 76 | 79 | 71 | 68 | 71 |
| plans | 53 | 64 | 60 | 35 | 62 | 42 | 48 | 41 | 30 |
| construction | 40 | 40 | 41 | 28 | 72 | 36 | 38 | 45 | 41 |
| keyboard | 19 | 26 | 27 | 28 | 5 | 12 | 11 | 5 | 5 |
| computing | 31 | 39 | 37 | 37 | 6 | 13 | 17 | 4 | 4 |
| care | 14 | 24 | 18 | 16 | 12 | 37 | 16 | 17 | 15 |
| advise | 49 | 54 | 43 | 42 | 29 | 59 | 48 | 29 | 21 |
| teaching | 39 | 48 | 41 | 41 | 40 | 51 | 44 | 31 | 22 |
| supervise | 62 | 51 | 41 | 41 | 40 | 51 | 44 | 31 | 22 |
| calculate | 44 | 49 | 42 | 42 | 26 | 24 | 44 | 26 | 23 |
| sales | 45 | 15 | 18 | 13 | 14 | 10 | 74 | 12 | 10 |
| financial | 43 | 33 | 28 | 22 | 21 | 24 | 33 | 18 | 13 |
| organise | 57 | 33 | 28 | 22 | 21 | 24 | 33 | 18 | 13 |
| n (100%) | 1025 | 488 | 488 | 273 | 1247 | 304 | 202 | 599 | 299 |

Females

| skills | Man. | Prof | AssProf | Cle/Se | Craft | Servic | Sales | Ops. | Other |
|---|---|---|---|---|---|---|---|---|---|
| | % | % | % | % | % | % | % | % | % |
| write | 63 | 76 | 67 | 65 | 54 | 54 | 56 | 48 | 45 |
| speak | 67 | 74 | 64 | 60 | 48 | 56 | 56 | 48 | 43 |
| tools | 27 | 29 | 37 | 25 | 43 | 32 | 29 | 32 | 27 |
| plans | 31 | 42 | 32 | 21 | 22 | 16 | 18 | 14 | 14 |
| construction | 15 | 18 | 16 | 13 | 23 | 13 | 13 | 17 | 11 |
| keyboard | 37 | 20 | 21 | 56 | 13 | 11 | 21 | 11 | 10 |
| computing | 28 | 18 | 17 | 33 | 7 | 4 | 9 | 4 | 3 |
| care | 35 | 57 | 71 | 42 | 44 | 71 | 53 | 53 | 54 |
| advice | 59 | 64 | 72 | 47 | 40 | 52 | 47 | 35 | 37 |
| teaching | 46 | 78 | 57 | 35 | 29 | 48 | 36 | 22 | 26 |
| supervise | 58 | 58 | 55 | 52 | 29 | 34 | 28 | 20 | 18 |
| calculate | 29 | 30 | 20 | 23 | 14 | 10 | 16 | 8 | 9 |
| sales | 35 | 10 | 15 | 14 | 16 | 17 | 46 | 13 | 15 |
| finance | 36 | 19 | 20 | 30 | 15 | 16 | 20 | 20 | 9 |
| organisation | 44 | 29 | 28 | 16 | 15 | 18 | 16 | 9 | 10 |
| n (100%) | 541 | 437 | 634 | 1351 | 134 | 803 | 465 | 239 | 377 |

**NOTE:**

Man. = managers and administrators
Prof. = professional occuoations
Ass.Prof.= Associate professional & technical occupations
Cle/sec = clerical & secretarial
Craft = craft & related
Service = personal & protective service
Sales = sales
Ops = plant & machine operations
Other = other